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ART. I. *Propositions in Medicine; prefixed to the new Edition of the "Examen des Doctrines Medicales," &c. by* J. F. V. BROUSSAIS. Translated by DUDLEY ATKINS, M. D.

(*Concluded from page* 230.)

SECT. III. *Therapeutics.*

262. IT is always dangerous not to arrest an inflammation at its commencement; for the crises are violent and often dangerous efforts of nature to relieve the system from a great danger; it is therefore useful to prevent them, and imprudent to wait their result.

263. There are four sorts of means to arrest the progress of inflammation: Debilitants, revulsives, fixed tonics, and the more or less diffusible stimulants.

264. The debilitants proper to arrest inflammations are, bleeding, abstinence, and emollient and acidulated drinks; but bleeding is the most efficacious.

265. The bleeding from large vessels is proper in those sanguine engorgements, which are formed with rapidity in the parenchymata under the influence of irritation: bleeding from the capillaries, performed at the nearest possible part

to the principal point of irritation; that is, upon the portion of the skin corresponding to the inflamed viscus, should be preferred in all other cases, when the disease is recent.

266. No inconvenience results from pushing the bleeding to syncope, in recent inflammations, in subjects previously healthy; in opposite cases this practice would cause a sacrifice to the patient, the benefit from which would not be proportionate to the hazard. The same remark may be applied to complete abstinence from food, and its continuance. The hemorrhage produced by leeches is always excessive in children and in young persons, whose skins are full of blood, and their heart energetic in its actions. The discharge from the punctures should then be stopped, as soon as faintness is felt.

267. Local bleeding is often injurious in old inflammations of the principal viscera, when there is not a superabundance of blood in the system. It is rare in such a case that it do not produce congestion; it is better to abstain from it, or to perform it at some distance from the principal point of irritation.

268. General or local bleedings in a person who has but little blood, always produce much uneasiness, augment congestion in the viscera, and often in this way produce convulsions and fever.

269. When a very recent inflammation, in a subject healthy before this disease, is suddenly removed, after having yielded to local blood-lettings, we may frequently return to the same remedy; convalescence will only be rendered more prompt and easy: but if a chronic inflammation existed previously to the acute one, this practice is often dangerous. It would be equally so, if the inflammation were general in one or several viscera; in such cases we must stop, if the pulse loses its strength without having lost its frequency.

270. Moderate inflammation of the brain yields to leeches applied to the epigastrium, especially when it has been preceded by gastritis; but violent congestions of blood in the brain require bleeding from the jugular, arteriotomy, and

leeches applied to the superior part of the neck; cold should then be applied to the head, while heat is made to act upon the inferior extremities.

271. Cerebral congestions with weakness of the pulse demand the application of cold to the head, and rubefaction of the inferior extremities by hot water, before bleeding is resorted to.

272. Leeches applied to the inferior part of the neck, between the insertions of the sterno-mastoid muscles, remove bronchial catarrh, and prevent pulmonary phthisis. This method is efficacious in the catarrh accompanying measles, and which otherwise would often produce fatal strangulation. The purulent aspect of the sputa does not then furnish a contra-indication.

273. Leeches placed around the clavicles and under the axilla, arrest the progress of a catarrh seated in the superior lobe of the lungs, and which would inevitably have produced phthisis pulmonalis. A sound which is flat, or less clear than natural, having but recently occurred, indicates, that the catarrh has penetrated to the parenchyma of the lungs, and calls strongly for local bleedings.

274. Leeches applied to the epigastrium arrest gastritis more easily than those applied to the anus; but the last is the most efficacious remedy in colitis.

275. When colitis resists the effect of leeches applied to the anus, and a painful point and tumefaction is perceived in the course of the colon, a new application of leeches or scarified cups to the part removes the disease.

276. To remove incipient colitis by the application of leeches to the proper point, is to annihilate epidemic dysenteries.

277. Tonsillary, pharyngeal, or laryngo-tracheal angina, as croup, hooping-cough, &c. yield more readily to local bleedings than to an emetic, which often exasperates them when there is attending plethora or gastritis.

278. The bilious, mucous, and other symptoms called gastric embarrassments, are more promptly and surely relieved

by leeches applied between the epigastrium and hypochondria, or by abstinence and water only, than by emetics.

279. Jaundice, depending almost always upon a gastro-duodenitis, or hepatitis, is removed by the application of leeches between the epigastrium and hypochondrium, provided it is followed by demulcents and an appropriate regimen.

280. Articular inflammations yield easily to the application of leeches, when they are simple; but if they are complicated with gastritis, bleeding from the epigastrium is often necessary for their cure.

281. The "fever of incubation," in the acute cutaneous phlegmasiæ, being the signal of an inflammation of the viscera, which precedes that of the skin, bleeding from the capillaries performed as nearly as possible to the principal point of internal irritation, renders the eruption more easy, and lessens its danger.

282. The *secondary* fever of confluent small-pox being the effect of erysipelas produced by the pustules, may be moderated and sometimes prevented, 1st, by bleedings performed during the fever of incubation; 2d, by leeches applied to the neck before the erysipelas of the face appears.

283. The fever called *adynamic*, which occurs in confluent small-pox, being only a gastro-enteritis produced by the cutaneous erysipelas, may be prevented by the means which arrest this erysipelas, (see the preceding Prop.)

284. The worms accompanying acute gastro-enteritis, being the effect of this inflammation, demand no particular remedies, and are expelled by nature, after the inflammation subsides.

285. Worms do not demand a particular treatment, except when they occur without an acute or chronic gastro-enteritis, or when this inflammation has been sufficiently checked.

286. The "*reliquats*," or sequelæ of the measles are inflammations of the bronchia, lungs, or gastric passages;

they require no other treatment than that of these inflammations.

287. Emetics cure gastro-enteritis by revulsion and the critical evacuations they produce: their effect is then uncertain in slight cases; and in violent cases they are always dangerous, because they never fail to augment the inflammation they are unable to remove. The case is the same with purgatives; but those which are bitter increase the heat most, while the saline conceal the inflammation by rendering it chronic. Such is often the effect of calomel and the neutral salts, which relieve the sufferings in gastro-enteritis, only by keeping up a diarrhœa which terminates in marasmus or dropsy.

288. Blisters often augment gastro-enteritis, because the inflammation they produce adds to that of the digestive mucous membrane, instead of producing revulsion; they do not then perform the services expected of them, in the degree of these diseases which is called *adynamic* fever.

289. Blisters generally increase the inflammations, whether acute or chronic, of the different tissues of the lungs, when they are applied before antiphlogistic treatment; but after repeated bleedings they are very successful in producing revulsion.

290. The stomach is an organ which has need of being stimulated, in order to maintain, by the sympathies it awakes, the degree of irritation necessary to the performance of the functions; but this should be in a degree and manner corresponding to its vitality, for it is the seat of the internal sense which regulates the whole system.

291. When the sensibility and irritability of the stomach are much increased, all stimulants injure it, and precipitate the performance of its functions to such a degree as to put a stop to them. Such are the most violent cases of gastritis, cholera, yellow fever, &c.

292. As the excess of irritability of the stomach does not always show itself by pain, or vomiting, but rather by the violence of the fever, delirium, stupor, and convulsive mo-

tions, these sympathies should suffice to induce the practitioner to renounce the use of stimulants.

293. The stomach, if tormented by stimulants, sometimes relieves itself from irritation by throwing it upon the exhalent and excretory vessels, by means of the sympathies it is naturally fitted to produce: this explains why all cases of gastro-enteritis are not fatal, although too much irritated.

294. When the stomach is affected by a chronic inflammation of a certain degree of intensity, and occupying the whole extent of its mucous membrane, all stimulants are offensive to it, and it can relieve itself from the irritation they produce only by increasing to the degree of an acute inflammation, and exciting the organic sympathies, by means of which it may produce crises; for the sympathies of relation cannot afford this relief.

295. The stomach affected by chronic gastritis, to which the effect of stimulants is still added, is exposed to great danger, if the inflammation is too intense to be relieved by revulsion, for it is exposed to disorganization. Hence the cure or exasperation of chronic gastritis by the use of thermal waters, &c. The irritation it throws upon the lungs, upon the brain, and upon the extremities, is often converted into phthisis, mania, apoplexy or gout.

296. If the chronic gastritis is confined to a more or less limited point of the stomach, which is indicated by the seat of pain in this viscus, that of the muscles corresponding to it, and the period of the digestive process, when all this is most remarkable, stimulants are unpleasant, augment the pain, and produce uneasiness and fever; but when the irritation of the diseased points has been relieved by the use of demulcents, the other portions of the organ which are too relaxed, demand stimulants; these produce a comfortable sensation, increase the strength, and augment nutrition, till they have revived the partial inflammation, which had only been quieted for the moment. As soon as this effect is produced, the former symptoms recur, and stimulants are again rejected.

297. In cases of partial inflammation of the stomach, many years often pass in these alternations of increase and diminution of excitement, produced by the versatility of treatment, till the local inflammation has caused disorganization of the viscus, either by producing a scirrhus, or softening and perforating the organ: finally the limit arrives when nothing is supported by the stomach, and death is inevitable.

298. The partial irritations of the stomach, characterized by the progress of symptoms described in Propositions 296 and 297, may be cured by persisting in the rejection of stomachic medicines, by allowing sufficient food to support nutrition, but selecting it among those articles which afford nutritious matter, without being too stimulating; finally, by calming the irritation, which always occurs at the close of digestion, by demulcent drinks. This mode of cure sometimes demands years, but it is the only one which is permanent; it may succeed, although there exists a certain degree of disorganization; it is particularly important not to debilitate by sanguine evacuations, nor by abstinence, which might deprive the viscus of its power of assimilation.

299. In chronic gastritis, and gastro-enteritis not complicated with colitis, the cure may sometimes be obtained by opposing constipation by calomel and the neutral salts; but this is only in cases where the inflammation is slight; for if it is inveterate and profound, especially if the organization of the viscus is compromised, this mode of cure, as well as those effected by other stimulants, is only palliative.

300. The hemorrhoidal irritation is often the effect of a chronic gastritis or gastro-enteritis, and should be treated by the same means. The exasperation of gastritis may suppress this flux, as it suppresses the menses; it is then very imprudent to give stimulants to renew it. The appropriate treatment of gastritis is much more sure, for when it is dissipated, the hemorrhoids are cured without danger, or they return if the flux is useful to the system.

301. When the stomach is not sufficiently stimulated by

aliments, all the functions become languishing, but hunger soon develops an irritation in this viscus, which renews many of them, in a manner unfavourable to the preservation of the individual. Such are the madness and mental excitement of starving people.

302. Unsatisfied hunger produces gastritis, and this develops its accustomed sympathies.

303. The heat of the epigastrium, pains of the head and limbs, and the redness of the tongue produced by hunger, disappear upon the administration of stimulating aliments, if they are still in their first degree; later, their phenomena are exasperated, and yield only to demulcents, and a gradual nourishment; but bleeding is improper in these cases.

304. When the stomach has passed articles of food into the intestines, which have not excited it sufficiently to produce their assimilation, they produce colic and a diarrhœa, which yield to wine and alcoholic drinks; if these substances are administered as soon as the colic has appeared, they renew the digestive process, and diarrhœa does not occur. This fact proves that assimilation is continued in the alimentary canal.

305. An imperfect assimilation of nourishment often takes place during the treatment of partial chronic gastritis by the demulcent method, but the sympathies resulting from it ought not to be attributed to inflammation. In such cases we must follow the treatment of a gastritis described in Prop. 298.

306. The period when the assimilation of aliments but slightly stimulating becomes imperfect, during the treatment of general chronic gastritis, is the moment of cure of these inflammations.

307. No one will ever succeed in the treatment of any disease, who cannot direct the irritability of the stomach. The knowledge of gastritis and gastro-enteritis is then the key of pathology.

308. When pulmonary inflammations have resisted antiphlogistics and blisters, they may still be effectually com-

bated by the use of cauteries, setons, and moxas placed as near as possible to the seat of the disease. But the case is not always the same with the mucous phlegmasiæ of the digestive canal.

309. Incipient acute hepatitis should be removed by local blood-letting, which also acts with efficacy upon the gastro-enteritis, which almost always attends it. This complication renders the effects of emetics more dangerous than useful.

310. Chronic hepatitis is sometimes palliated by emetics purgatives, calomel, and saponaceous medicines; but it is rarely cured by any other method than a perseverance in a demulcent regimen, and by revulsives and exutories placed near the affected organ.

311. Apyretic jaundice, even in new-born infants, being most frequently the effect of a gastro-duodenitis, is more effectually combated by the remedies appropriate to this inflammation than by purgatives and the pretended solvent (fondants) medicines ; still more when it is attended by fever, and when it depends upon hepatitis.

312. Incipient peritonitis is easily removed by leeches applied to the abdominal parietes, but when it has continued several days, it is often beyond the operation of all remedies : general bleeding rarely effects the cure of it.

313. Peritonitis in the puerperal state, being generally the effect of an inflammation of the uterus, should be arrested in its commencement by applying a profusion of leeches to the hypogastrium ; it yields to the operation of emetics only by revulsion : of course it is often exasperated by their use.

314. The warm bath cures peritonitis only by creating a revulsion in the skin, and the disease is exasperated if this revulsion does take place. So the warm bath often renews peritoneal inflammation which had been arrested by the application of leeches. The case is not the same with emollient fomentations.

315. The warm bath often exasperates acute gastro-enteritis, because stimulations of the skin are ordinarily repeated

in the internal membrane of the gastric passages; cold applications to the abdomen, and even cold baths are more powerful, when the lungs are not inflamed. These means sometimes enable us to dispense with a repetition of the bleedings.

316. When the inflammation attacks simultaneously the mucous membrane of the lungs and of the intestinal canal, cold may be applied to the abdomen after bleeding, whilst a warm cataplasm is kept upon the chest; but if the cough is increased, we must renounce the cold applications.

317. Typhus, being a gastro-enteritis produced by miasmatic poison, that is to say by putrid gases, often with a complication of some other inflammation, and especially those of the encephalic cavity, may be arrested by the treatment appropriate to these diseases, when they are attacked in their incipient state.

318. When the inflammation of typhus is not attacked at its commencement, evacuations of blood are often dangerous; for the putrid gaseous poison so weakens the vital power and vital chemistry that losses can no longer be repaired.

319. The excessive increase of the vital phenomena is the most powerful cause of their diminution, and heat is the agent most fitted to produce this increase; this is the reason why the typhus of hot countries, where the putrid gases are generally more poisonous, is more dangerous than all others; and strong subjects perish more easily than the weak. We may justly infer from this, that cold is more effectual than repeated bleedings in these cases; but it should be employed from their commencement, immediately after bleeding, and internally as well as externally.

320. The slightest stimulation adds much to the intensity of typhus of hot climates when it occurs in the early periods of the disease. Emetics are often very dangerous at this time; for example, in yellow fever.

321. As the acute phlegmasiæ are much more rapid in their progress, when they occur in a tissue already affected with chronic inflammation, the most effectual mode of les-

sening the ravages of yellow fever is by preventing the development of chronic gastro-enteritis which is often the forerunner of the acute, and by acclimating the system.

322. This last may be produced in hot countries by blood-letting, by a considerable diminution of food, and by repose; but we should avoid the abuse of vegetable food, and of refrigerant drinks, which produce indigestions; for by them an irritation is developed, which becomes the nucleus of the gastro-enteritis so much feared.

323. Copious repasts are dangerous for those newly arrived in hot climates, because they require a too prolonged action of the stomach, and keep up a copious sanguification. The abuse of alcoholic drinks also exposes to much danger; thus two kinds of excess retard acclimatisement, and facilitate the operations of miasmatic poisons.

324. An aromatic water enlivened by some alcoholic substance, and acidulated, should be used to repair the loss of fluids resulting from the excessive sweats produced by hot climates in persons from northern latitudes; but if they have sufficiently reduced the quantity of solid aliments the thirst and sweat soon diminish.

325. Concentrated stimulants are always injurious to inhabitants of the north, transported to southern latitudes, at least, till they are acclimated.

326. When entire loss of strength succeeds the excessive irritation in yellow fever, the principal resources are in acidulated drinks and clysters, and cold applications to the exterior of the body, if the heat is considerable.

327. If acute gastro-enteritis, whether typhoid or not, has resisted bleeding from the capillaries of the epigastrium, and from the breast and head if the inflammation is repeated in these cavities; when blackness of the tongue, stupor and weakness of the pulse occur, the patient should be nourished by gummy, sweetened and acidulated drinks; but if the mouth becomes clean and appetite returns, we should give milk and water, and afterwards light broths as nourishment;

otherwise the patient might die from inanition before the termination of the inflammation.

328. Nausea and vomiting in the commencement of acute gastro-enteritis do not require emetics; but leeches to the epigastrium, and emollient and warm cataplasms to the inferior extremities.

329. Constipation is favourable in acute gastro-enteritis, because it indicates that the colon does not participate in the inflammation. It requires nothing else than a daily emollient injection even if it should continue; and if the heat is great this injection should be cold.

330. The diarrhœa of gastro-entero-colitis may be removed at its commencement by the application of leeches to the anus, in number proportioned to the strength of the individual. But if the prostration is considerable, and the sanguine system exhausted, we should content ourselves with the use of gummed rice-water, and injections of a solution of starch and some drops of the watery tincture of opium.

331. When the copious flow of blood from the punctures made by leeches, has produced great weakness in the commencement of gastro-enteritis, we must be cautious of restoring the patient by stimulants; he should rather be left in this state, if the circulation is not interrupted, because it is ordinarily followed by a prompt cure and an extremely rapid convalescence. If, however, there were a *continued* state of syncope and asphyxia, we should administer some spoonfuls of wine and water, and return to the use of demulcents as soon as the pulse is restored.

332. When the hemorrhagy from leeches continues in spite of syncope and asphyxia, the flow of blood should be stopped, especially in young children who are in most danger of dying from hemorrhagy, and who on this account require particular care.

333. Local bleedings, abstinence, and aqueous drinks, always prevent an incipient phlegmasia, when the inflammation in the viscera is not very extensive; but if many organs are inflamed at the same time, and to a great extent, which

is indicated by excessive anxiety, prostration, and extreme frequency of the pulse; we might evacuate all the blood before we could arrest the inflammation. In this case the frequency of the pulse continues in spite of abundant evacuations of blood; we should therefore spare this fluid, and confine our treatment to nourishing the patient with aqueous drinks, to which gum or milk are added when the crust and blackness of the tongue are removed.

334. An incipient meteorism in acute gastro-enteritis may be removed by the application of leeches to the abdomen; it may also be cured by the application of ice; if it is allowed to remain, or if stimulants are given, it may change to peritonitis.

335. The subsultus tendinum, and delirium, which occur during an acute gastro-enteritis, indicate the accession of irritation in the brain, and yield, at their commencement, to the application of leeches to the abdomen; but if these symptoms have already continued some time, they should be attacked by the application of leeches to the temples, or better still, along the course of the jugulars, because the sympathetic irritation of the brain is already transformed into a true inflammation.

336. When there is a great appetite in acute gastro-enteritis, after the patient has returned from the state of stupor, some broth should be permitted, notwithstanding the continued frequency of the pulse, great heat and red tongue; otherwise the hunger would increase the gastritis, and renew the stupor, blackness of the tongue, and prostration; but more substantial food would be injurious.

337. When pains in the head, foulness of the mouth, nausea, uneasiness, frequency of the pulse, occur in convalescence from acute gastro-enteritis, it is because the convalescent has eaten too much. In this case the quantity of food must be diminished, instead of giving emetics and purgatives. In one day he will be restored to convalescence.

338. If a difficulty of passing the urine occurs during a case of gastro-enteritis, the irritation has extended to the

bladder; a prompt application of leeches to the hypogastrium removes this complication and prevents many *accidents*.

339. When inflammation of the parotid occurs during a gastro-enteritis, it should be removed, or at least the progress of it moderated by the application of leeches, if the patient is not exhausted; otherwise this external inflammation would increase the internal one, or produce a fatal congestion in the brain.

340. When epistaxis occurs in acute gastro-enteritis, it is favourable, if the frequency of the pulse is diminished. If the hemorrhage becomes excessive, it may be opposed by a blister applied to the back of the neck or between the scapulæ.

341. If hæmoptysis takes place in acute gastro-enteritis in spite of bleedings, it requires a blister at the top of the sternum. Intestinal hemorrhages require a blister upon the abdomen, and *gummy* drinks, or a ptisan of rice with sulphuric acid, because these hemorrhages produce exhaustion of the viscera, which prevents the blister from being injurious.

342. Pulmonary phthisis may be prevented at an early period by removing the irritation of the respiratory organs by antiphlogistics and by revulsion.

343. Hypochondriasis may be cured, and scirrhus of the digestive canal, and even pulmonary phthisis be prevented by the means which remove chronic gastritis. Muscular exercise and amusement, are of the first importance.

344. Engorgements of the liver may be prevented or cured by the means appropriate to chronic gastro-enteritis.

345. Chronic gastritis may be cured by light food, and particularly by attention to refreshing the stomach, by aqueous drinks in small quantities from the moment following the taking of food, till the next repast or the hour of sleep.

346. Chronic gastro-enteritis should not be treated by repeated local bleedings and total abstinence, except in the most robust subjects; for this treatment would throw a weak system into a state of debility, from which it would re-

quire years to recover it, and during all this time the mobility of the system is excessive and relapses of ready occurrence. The continuance in a mild regimen, and the use of watery drinks during digestion, always suffice in cases of this sort, and produce their cure, if the viscera are not disorganized. But our patient should be informed of the tediousness of this mode of cure, at the same time that he is assured it is the only one which is durable.

347. Riding on horseback is dangerous in chronic gastritis with considerable increase of the sensibility of the stomach.

348. The air of large cities is injurious to persons attacked with chronic gastritis; that of the country is advantageous to them, especially when united with exercise, for these modifying powers as well as aqueous drinks, hasten digestion, the slowness of which keeps up the irritability of the stomach.

349. Emetics, purgatives and tonics are only palliatives in chronic gastritis, and gastro-enteritis, and render a radical cure more difficult.

350. Mineral waters, whatever be their composition or temperature, do not cure chronic gastritis, except by the revulsive evacuations they produce, and this is only after the disease has been exasperated by them; these cures are seldom radical, and after having tried them for many years, they are often incurable at last.

351. Chronic engorgements of the liver, the spleen and mesentery, being almost always the effects of chronic gastro-enteritis, can be completely cured only by the treatment appropriate to this disease.

352. The pharmaceutic preparations, and mineral waters, which produce an evacuation of bile, of mucus or of urine, or which excite perspiration, hemorrhagies, or cutaneous inflammations, diminish for a time by this revulsion, the engorgement of the liver and spleen, when the irritation of the gastric passages is not extreme; but they rarely produce a definitive cure. This can be obtained only by a long

perseverance in the regimen appropriate to chronic gastro-enteritis.

353. Mucous engorgements of the lungs, or chronic catarrh with difficult excretion of the bronchial mucous, are palliated by the expectorant and incisive medicines of authors; but they can be cured only by antiphlogistics, the influence of heat, and by revulsion.

354. If we would prevent scirrhus of the neck of the uterus occurring at the critical period of life, in women whose menstruation is painful, the irritability of the uterus should be quieted long before this period.

355. The abuse of venereal pleasures, and violences suffered by the uterus, being frequently the causes of cancer of the uterus; we should endeavour to relieve the chronic inflammations of the neck of the uterus, which are the consequence of them, so as to prevent the occurrence of cancer.

356. Stone in the kidneys and gravel, do not always require a long time for their formation; they may often be prevented by the application of leeches to the region of the kidneys, and the administration of emollient drinks, as soon as the first symptoms of nephritis are perceived, and the habit of this disease will soon disappear entirely.

357. Powerful diuretics, as the saponaceous and alkaline medicines, the uva ursi, turpentine, &c. procure the passage of gravel already formed, but they often keep up the latent inflammation which produces them.

358. A recent catarrh of the urinary bladder, yields easily to local bleedings, to refrigerant drinks, to abstinence, and the return of external irritations, which had disappeared; but if it has become chronic, it is often incurable, and diuretics can only palliate it. The means which afford the most relief in the last case, are almost always to be found among the antiphlogistic remedies.

359. Madness does not exist without some degree of irritation of the brain, accompanied by, or depending upon, a chronic gastritis; and these diseases should be treated by local bleedings, by antiphlogistics, and revulsion. By aban-

doning them to the powers of nature, we expose maniacs to epilepsy, as well as to paralysis and apoplexy, which are the consequences of inflammatory disorganization of the brain. They are also exposed to the organic changes in the abdomen, by which neglected gastritis is always terminated.

360. Pulmonary phthisis, peritonitis, rheumatism, and gout, are only accidental in mania; the case is not the same with the mucous phlegmasiæ of the abdomen, and with parenchymatous engorgements in this cavity. From this it is easy to see what we should do to prevent and to cure these accidental affections.

361. The principal differences to be established between cases of mental alienation, should not be deduced from the nature of the delirium, but only from the degree of organic irritation of the brain and first passages. The most inflammatory are the most violent; the rest are grouped below them, according to the intensity of the inflammation, then according to its duration and the probabilities of disorganization: from this are drawn the indications of physical treatment; but the nature of the delirium leads to the determination of the best moral treatment.

362. Laryngeal and tracheal phthisis are always the effects of a local inflammation, which has not been arrested in its commencement, and they become fatal, only from consecutive pneumonia or gastro-enteritis; this evil then, will be prevented by removing the tracheal inflammation at an early period, or it may be retarded, if it is not already too far advanced, by opposing the development of the inflammation of the lungs and the digestive organs.

363. Hypertrophy of the heart, which is not congenital, being often the effect of a latent inflammation of this organ, may be prevented by general and local bleedings, by digitalis, and by revulsion produced at the part where some external irritation was fixed, which has been lately displaced; if these means are employed as soon as the pulsations of the heart have acquired an extraordinary energy. Antispasmodics are then useless palliatives.

364. Digitalis lessens the number of the contractions of the heart, only when it is applied to a stomach free from inflammation, and there is none in any of the other principal viscera; in the opposite cases they accelerate its action by increasing the inflammation.

365. Digitalis lessens the contractile power of the locomotive muscular apparatus; it may then be useful in convulsions, if there is no inflammation of the viscera; but it is not prudent in every case, to augment the dose too far, or to continue its employment too long.

366. Spontaneous hemorrhages, like inflammations, should be treated by general and local bleedings, by refrigerants, and especially by revulsion, let the strength of the subject be what it may: the last mode is the best resource, when the debility has become considerable.

367. Spontaneous hemorrhages being often kept up by an inflammation either in the part, or distant from it, the attention of the physician should always be directed to this point.

368. Spontaneous hemorrhages often coincide with hypertrophy of the heart. Digitalis may then be useful, provided the state of the stomach allows its employment.

369. Spontaneous hemorrhages often succeed to inflammation, or assume its characters in the part itself. Those of the lungs should therefore be attacked by antiphlogistic and revulsive treatment, without suffering the supposition of pre-existing tubercles to prevent our efforts.

370. Mineral waters excite the heart and all the circulatory apparatus, increase the disposition to hemorrhage, and even produce it when it does not exist, and often produce aneurism, paralysis, and apoplexy.

371. Spasms, and convulsions of all kinds, being always the effect of a local irritation, either fixed or changeable, yield to the treatment of this irritation, that is, to antiphlogistics, and sometimes to revulsives, where the irritated tissue is not disorganized.

372. Antispasmodics* cure convulsive affections, only

* By antispasmodics, I mean stimulating medicines, according to com-

where the stomach supports them without being too much excited, and when the point of irritation, which is the cause of these affections, is not raised to the degree of inflammation. They are also injurious in hypochondria and hysteria.

373. Antispasmodics may suspend the nervous phenomena, in spite of the inflammation of the tissue, upon which these phenomena depend; but the disease is exasperated, and the cure can only be obtained by antiphlogistics and revulsion. The exercise of the locomotive muscles is the best means of removing convulsive mobility: it acts by displacing visceral irritations, by exhausting the superfluous activity, and by attracting the exertions of the system to its nutrition, and towards the exhalent and secretory tissues.

374. Temperance is a condition, without which it is impossible to cure spasmodic and convulsive symptoms.

375. Scurvy, unattended by inflammation, yields promptly to wholesome nourishment, either vegetable or animal, provided their effect is seconded by a pure dry air, by light and the agreeable passions, and active stimulants may accelerate the cure; but if it is complicated with inflammations, gelatine, albumen, milk, the muco-saccharine, and oleraceous vegetables should be given without stimulants. The acrid antiscorbutics, bitter, and alcoholic substances are then eminently injurious.

376. Since the affection of the gums accompanying scurvy is an inflammation, it should be opposed at first by antiphlogistic, and afterwards by slightly irritating topical applications; but it is indispensably necessary to remove the tartar from the teeth. The same remarks are applicable to inflammations of the gums without scorbutic diathesis: they are more common than the scorbutic.

377. There are five usual methods of treating remittent and intermittent inflammations: 1st, by Antiphlogistics

mon opinion, and not demulcents, which are almost always the best antispasmodics.

during the hot stage; 2d, by stimulants and tonics during the apyrexia; 3d, by stimulants during the hot stage; 4th, by stimulants given at the moment of the chill; 5th, by antiphlogistics during the apyrexia.

378. Intermittent inflammations yield to bleedings and cold applications during the hot stage, in spring, when the patient is robust and plethoric, and the disease is recent; in these cases leeches should be applied as near as possible to the principal point of irritation.

379. Intermittent inflammations yield without danger to bark and other tonics during the apyrexia, when the system is not in a state of plethora, and when the principal viscera, especially the digestive organs, retain no trace of inflammation after the hot stage; that is, when the fever is not remittent.

380. Intermittent inflammations are rarely cured by the administration of stimulants during the hot stage; this mode of treatment tends rather to make the inflammation continued or remittent.

381. Intermittent inflammations are rarely cured by stimulants given at the beginning of the chill, because the irritation produced by them increases the intensity of the hot stage. This method seldom succeeds, except after the employment of antiphlogistics, and in robust subjects, in whom the apyrexia is complete.

382. Inflammations with periodical exasperations, are cured by antiphlogistics administered during the remission; when inflammation of the viscera remains after the sweat, and especially when this inflammation is sufficiently intense to keep up some degree of pyrexia, that is, when the fever is truly remittent.

383. The best method for the certain cure of inflammation with periodical exasperations, is, to treat it by antiphlogistics during the hot stage, so as to render the apyrexia complete; to continue this treatment after the access, if it is not so; to give cinchona and other tonics during the whole apyrexia; to give diffusible stimulants at the moment

of the chill, and to return afterwards to cooling drinks, when the hot stage is developed.

384. Bark and other stimulants administered while there remains any inflammation in the gastric passages, increase the inflammation to an acute and continued state, or prolong its existence in a chronic form, while the access of the disease ceases; then irritation and congestion are developed in the parenchymatous viscera. Thus it is that the bark produces *obstructions*.

385. Intermittent inflammations abandoned to nature, are cured, if they are slight, and if the causes producing them have ceased to operate: in the opposite case, they are either increased to an acute and continued form, or they degenerate into a chronic continued form, which is at last attended by *obstructions*.

386. *Obstructions* of the parenchymatous viscera, (the liver, the spleen, and the lungs,) occur sometimes in intermittent fevers, when the inflammation of the mucous membrane does not pass to the continued state; they are then cured by the administration of bark during the apyrexia.

387. When the access of an intermittent fever has been arrested by the use of bark, and there are uneasiness, visceral engorgments, loss of appetite and slight fever, it is because the medicine, administered while the gastric membranes were still the seat of irritation, has produced a chronic inflammation of these organs. In this case, the cure may be effected by antiphlogistics.

388. When the suppression of the access of an intermittent is followed by a pathological state without fever, the return of the access, produced by the cold bath and purgatives, is useful, if the crisis of the fever removes the irritation of the gastric passages, so that the apyrexia becomes complete; but if this is not the case, its return is an evil. In the first case, we should give the bark during the apyrexia; in the second, we should have recourse to antiphlogistics, which cure the disease, or render the apyrexia complete, so that the bark may then be given with advantage.

389. When the stomach cannot support the bark in intermittent fever, this medicine should be given by means of injections; but if the large intestines are inflamed, the bark can only be employed externally, either topically, or by friction, in the form of an alcoholic tincture. In this case, demulcents should at the same time be given internally; rubefacients may also be used during the apyrexia.

390. The intermittent fevers called malignant, (*pernicieuses*,) should be treated like those not called so; except that more promptitude is required.

391. Dropsy sometimes occurs at the first attack of intermittent fever, but ordinarily, it is the result of their long continuance only.

392. Dropsy produced by an obstacle to the circulation, yields to bleedings, and to light diuretics, if the obstacle is not incurable. The digitalis is useful, if hypertrophy of the heart is its cause.

393. Dropsy occasioned by the sympathetic effect of a chronic inflammation, is rarely curable, because this inflammation does not produce it till it has produced disorganization of the part where it is seated. The treatment consists of that which is suited to the inflammation, and of diuretics so administered as not to injure the stomach.

394. The dropsy which depends upon an accidental deviation of the serous fluids, that is, upon the cessation of the action of the depurative capillary vessels, yield upon the re-establishment of the transpiration and the course of the urine. Warm and dry vapours applied to the skin, dry and stimulant baths, (as hot sand, skins of grapes, &c.) diuretics, and even purgatives, produce these cures; but care must be taken to remove plethora, and not to exasperate those inflammations which might exist simultaneously.

395. Dropsies arising from imperfect assimilation, are removed by tonics, by a warm dry light air, good diet, and the remedies of scurvy, if this disease exists at the same time with it. But those caused by the abuse of mercury and other mineral substances, sometimes resist, on account

of the gastro-enteritis which accompanies them, and which has often concurred to produce them.

396. Dropsies which originate from hunger, hemorrhagies, and other causes of exhaustion, are curable by tonics, good diet, wine, alcohol, and active diuretics, when there is no disorganization of the viscera; but great caution is necessary in restoring the system to strength.

397. Scrophula commencing at the exterior of the body, under whatever form it may appear, may be removed by the free application of leeches; then the diathesis, which is only the repetition of irritation from similarity of tissues, is not produced.

398. The scrophulous disposition, which always appears externally, may be removed, when not inveterate, by the use of a dry, warm and light air, that is, by qualities the reverse of those which produced it. It also yields to exercise, but only in the open air.

399. Stimulant articles do not remove scrophula, but by the excitement of the depuratives, that is, by revulsion; and if they do not produce this, they exasperate the scrophulous as well as every other inflammation.

400. When, in cases of scrophula, stimulant ingesta do not produce revulsion, they develop gastro-enteritis, and add to the external irritation, and then the tabes mesenterica of authors is produced; and if the lungs are attacked by the irritation, it forms the phthisis called scrophulous.

401. The inveterate scrophulous diathesis upon the exterior of the body, is removed in time, by exercise in the open air, by temperance and good diet, provided that all irritants are so managed as not to develop an inflammation of the viscera.

402. Exutories are useful in the inveterate scrophulous diathesis, if their effects are seconded by proper exercise, and irritation is not drawn to internal parts, by the abuse of stimulants.

403. Rickets, or osteo-malaxis, is an irritation of the

osseous system, which depends upon the same causes as scrophula, and is cured by the same methods.

404. Chronic pneumonia (phthisis) is more rare than chronic gastro-enteritis in scrophulous and rickety subjects, while yet children; because the lungs are then less disposed to inflammation than the gastric passages: it is important therefore, not to add to this disposition.

405. Syphilis is an irritation which, as well as scrophula, affects the exterior of the body, and the repetition of it, which forms the diathesis, may be prevented by attacking it from its commencement, by local antiphlogistic applications, and especially by an abundance of leeches.

406. Inveterate syphilitic irritations yield to antiphlogistics and abstinence; but as this mode of cure is tedious, mercury and sudorifics are preferred.

407. Mercury, sudorifics, and other stimulants, cure syphilis only by producing a revulsion in the excretory capillaries, but it should be seconded by abstinence; for the syphilitic irritation is kept up by a too copious sanguification.

408. The stimulants called anti-venereal, should be given internally with great caution, else they develop a gastro-enteritis, which is reflected back upon the external syphilitic irritation, and revulsion does not take place, or perhaps the irritation is fixed upon the viscera, which at last become disorganized.

409. Where the stimulants called anti-venereal, have produced a gastro-enteritis, and the syphilis is not cured, it will only yield, with the gastro-enteritis, to a long perseverance in antiphlogistic remedies; but if the gastric viscera are too much disorganized, or the patient too feeble, the cure is impossible.

410. Gastric inflammations produced by the abuse of anti-venereal medicines, are easily transmitted to the lungs, producing phthisis, if the antiphlogistic treatment is not promptly and effectually resorted to.

411. Mercurial stimulants applied locally to external syphilitic irritations, always exasperate them, if they are in-

tense; they cure them only when they are slight, by opposing irritation to irritation. But this fact is common to all the phlegmasiæ of the exterior of the body, as well as to hemorrhagy.

412. The predisposition to syphilis is the same as the predisposition to scrophula; and those subject to it are more difficult to cure than others.

413. Those who are predisposed to gastritis, should be treated for syphilis by antiphlogistics, as well externally as internally; if they are stimulated through the stomach, it becomes too much irritated, and sometimes the syphilis is not cured.

414. The cutaneous irritations, called tetter, should be treated by local bleedings, emollients externally, and cooling medicines internally, while there is any inflammation of the skin: when there is only a sub-inflammatory irritation, stimulants may be applied to the skin, especially the sulphurous, and revulsion may be attempted by means of sudorifics, diuretics, and purgatives; but internal stimulation must not be pushed so far as to produce gastro-enteritis, for this would produce a return of the eruption, or if not, it would disorganize the digestive viscera. This is called the metastasis of tetter to the internal parts. All these remarks may be applied to the Greek or tuberculous leprosy.

415. In the cures of inflammations, sub-inflammations, ulcerations, in a word, of all irritations situated upon the exterior of the body, effected by means of narcotics, astringents, rubefacients, caustics, in cases of erythema, ophthalmia, blenorrhagia, itch, tetter, scrophula, and syphilis, we find only morbid irritations, yielding to the irritations of medicines. But these cures take place, only when the first are not very intense. If they are so, they are increased by them, and there is danger of disorganization. In this manner eroding or cancerous ulcers are often produced. The treatment of irritations by irritants, should always be preceded by the employment of antiphlogistics, otherwise we should be playing at double or quits, (*quitte ou double.*)

416. Where the external irritation attacked by irritants, is intense, habitual, or accompanied by an abundant discharge of fluids, it either augments, without changing its seat, or it is replaced by an increased action of the excretory capillaries, or it is changed to a morbid irritation of the viscera; these two last are revulsions, but one is favourable, the other injurious.

417. The cure of intense inflammations, as peritonitis, whether puerperal or not, acute rheumatism, pneumonia, &c. by the use of tartar emetic, calomel, mercurial frictions, opium, oil of turpentine, and drastics, is not the effect of a direct sedation; it results from the exciting a great number of organic sympathies, which afford an opportunity for revulsion, and is only effected by critical evacuations; and if the stimulant is too weak to produce them, or the morbid irritation too intense to be displaced, the disease augments, and acute or chronic disorganization is the result. This method of treatment should then be preceded by antiphlogistics, and even with this precaution the game is a dangerous one.

418. It is rare that the cure of acute morbid irritations, obtained by violent revulsive stimulants, is not followed by a chronic morbid irritation, and especially by gastro-enteritis. Thus many cases of hypochondria are produced, for the excessive stimulation of the stomach produces an accumulation of sensibility in this viscus, and gives more activity to the sympathies which associate it to other organs. In this case we have only changed one disease for another.

419. Poisonings by acrid vegetables, by corrosive minerals, by concentrated acids, by alkalies, by cantharides, are cases of gastro-enteritis, which tend to ulceration, if it is not already the consequence of an eschar produced by them; their treatment is that of ordinary inflammation, except that acids must be excluded.

420. Poisonings by narcotics are cases of gastro-enteritis, without corrosion at their commencement, but attended by a repetition of the irritation in the encephalic apparatus,

which produces congestion, intoxication, delirium, convulsions, &c. they should be treated at first by acidulated drinks, and without bleeding, while stupor exists to a considerable degree; but when this is dissipated, the inflammation remaining should be treated like that which results from the action of acrid substances, for it may have all its symptoms; madness is often an ultimate effect of them.

421. Poisonings by lead (colica pictonum) are cases of gastro-enteritis in different degrees. In the lowest degree, which is without fever, they may be cured by the revulsion produced by emetics and purgatives, as well as common cases of gastro-enteritis of the same degree; but this mode of treatment often leaves behind it a chronic inflammation of the mucous membrane. In the degree attended by fever, these cases should still be treated like ordinary gastro-enteritis of the same degree. It results from this, that the only treatment to inspire confidence, is the antiphlogistic.

422. Poisonings by putrid meat, spoiled fish, mushrooms, are cases of gastro-enteritis attended by cerebral congestion and stupor, and soon followed by a loss of strength; they should be treated by vomiting produced by mild drinks, and by the muco-saccharine purgatives and neutral salts, when the poison is still in the gastric passages; afterwards by acidulated drinks, injections and lotions, and by leeches applied to the epigastrium and neck, proceeding with circumspection, and according to the effects. The cure should be terminated by the antiphlogistic regimen.

423. Debility is *most frequently* the effect of irritation, and *sometimes* by itself constitutes the disease.

424. The absence of respiration is the most powerful cause of debility; it necessarily produces an absence of all irritation; but it is sometimes preceded by irritation.

425. In excessive spontaneous hemorrhagies, even without inflammation, debility always succeeds to the irritation, and then becomes the principal disease. But in traumatic hemorrhagies, it does not depend upon irritation, and it affords the principal indication.

426. Paralysis following cerebro-spinal affections, is always the result of irritation; it then furnishes only partial or local indications.

427. Paralysis following great losses of other fluids than the blood, always depends on irritation; but it soon affords particular indications.

428. Whatever may be the debility attending irritations, they alone afford indications, while they are sufficiently violent to be exasperated by the administration of nourishment, or of stimulating medicines. As soon as the reverse is the case, the state of debility affords indications which must be combined with those depending on irritation; and finally, when this has ceased, the debility becomes the principal disease; but the irritability of the organs demands greater caution in the employment of stimuli.

429. Convulsions and pains, whatever may be the name given them, leave after them a debility, which sometimes alone furnishes the indications of cure; but they are oftener mixed, because there are remains of irritation in the organ which has excited the convulsions and pains.

430. The debility following venereal excesses, is almost always accompanied by irritation in one or several of the viscera.

431. External cold, when excessive, produces a debility, which passes from the skin to the apparatus of locomotion, as well as to the vessels and nerves of the circumference of the body, and from them to the viscera, from whence death may result; in this case debility constitutes the principal disease. But if the cold is only moderate, the vital powers excite an irritation either upon the surface or in the viscera, which becomes the principal affection, and affords indications, when the cold has ceased to act.

432. Paralysis of the limbs arising from percussions, is the result of irritation; if this continues, the indications must be derived from it; but if nothing indicates its continuance, the debility becomes the chief disease.

433. There are modifying powers among external agents,

which destroy life, without producing any appreciable reaction, and then the debility alone constitutes the disease; but these cases are much more rare than has been believed.

434. Miasmata arising from the decomposition of dead animal and vegetable matter, and from the emanations from the bodies of animals, either healthy or diseased, when crowded in close places, are sometimes sufficiently deleterious to produce debility, and even death, without reaction; but whenever they produce pain and fever, an irritation occurs in the digestive mucous membrane, and often, by sympathy, in other viscera, and from this irritation the chief indications are to be drawn; this constitutes typhus; and then it is produced by infection. (See the propositions upon the treatment of acute gastro-enteritis.)

435. Every patient affected with typhus, may himself become the source of infection to other healthy persons, and communicate his disease to them, if he is enclosed in a confined place, and the exhalations are allowed to stagnate around him; this is febrile contagion; but if he is placed in a healthy situation, well aired, and clean, this communication is difficult. Are pestilential (plague) and variolous typhus, the only ones which are contagious, notwithstanding these precautions?

436. Parturition is often followed by a debility, which increases progressively, till death takes place, and which alone furnishes indications, although it is the product of irritation.

437. Syncope is caused by the interruption of the course of the blood passing to the brain; it always affords an indication for stimulants; but after it has ceased, contrary indications are presented, when the cause of the interruption of the blood is an irritation.

438. Asphyxia arising from the respiration of deleterious gases, is a state of "*abirritation;*" but when it is removed, there always remains irritation of the principal viscera.

439. The debility following the passions, called depress-

ing, as terror, &c. supposes always an irritation of the principal viscera, which then becomes the chief disease.

440. Debility furnishes the principal indications, only when unattended by a simultaneous inflammation.

441. When the most violent gastro-enteritis is prolonged to a certain point, the debility affords indications which must be satisfied by nourishment, to prevent death, *per inediam;* for a period sometimes arrives, when digestion may be performed, notwithstanding the continuance of inflammation, without increasing it.

442. Persons who have been for a long time below the degree of fatness and strength, which is natural to their constitution, require a long time to be restored to this degree. They cannot support a certain quantity of blood, without experiencing the effects of plethora, and being exposed to inflammations.

443. The sum total of strength diminishes in diseases of irritation, because the precipitation of the organic motions causes decomposition and elimination to predominate over nutrition and absorption; we must, however, except certain cases of gastritis attended with boulimia, in which the fatness and strength increase in spite of the irritation.

444. The indication to increase the strength by copious nourishment, is not derived from emaciation or debility; but only from the rapidity of assimilation, and the predominance of composition over decomposition.

445. The indication to excite the stomach by tonics, is derived neither from emaciation nor weakness, but rather from the paleness and breadth of the tongue, as well as the feeling of languor and slowness of digestion, when aliments but slightly stimulating have been used. It may also result from the pains of the stomach, eructations, borborygmata, and colics, which attend this kind of digestion, when these symptoms disappear upon the use of slightly stimulant aliments.

446. General debility, without inflammation, requires only good nourishment and a moderate quantity of wine,

if digestion is performed. If it is difficult, bitters are required.

447. Debility, with inflammation elsewhere situated than in the alimentary canal, requires nutriment, which is light and leaves little residuum, if the inflammation is acute; but all stimulants are forbidden, the irritation of which would be repeated in the inflamed organs; if the inflammation is chronic, this debility calls for substantial aliments, but always those of easy digestion. As for tonics, they are admissible in small doses, and for the moment only.

448. Debility with a catarrh which exhausts by a too copious expectoration, and without fever, calls for the use of aliments, which are substantial and of easy digestion with the employment of the astringent tonics in very moderate doses. Such are the bark, lichen, and the acetate of lead. It also calls for revulsives, but without long continued suppuration.

449. Debility with acute gastric inflammation requires the treatment indicated by this inflammation; but if it is with chronic gastritis, it demands aliments derived from among the feculent vegetables, and even milk and the white meats, with attention to cooling the stomach by small quantities of demulcent fluids, when it becomes heated by the process of digestion. (See the treatment of these diseases.)

450. Debility attending acute colitis calls only for the treatment appropriate to this disease; but if it is chronic, it calls for the feculent vegetables deprived of every portion which might leave a residue in the colon, and a moderate use of some red wine to retain the aliment in the stomach: for the irritation of the colon calls them towards this intestine before assimilation is effected, and they then act as purgatives.

451. The debility produced by excessive hemorrhages requires gelatinous, albuminous, and feculent nourishment with a little red wine, some astringents and fixed tonics; but it forbids high-seasoned food, and diffusible stimulants.

452. The debility succeeding to violent convulsions, and unattended by gastritis, requires the employment of the same food as that resulting from hemorrhage; but some diffusible antispasmodics should be joined.

453. The debility and exhaustion which follow excessive muscular fatigue, call for food which will afford much nourishment in a small bulk, and a moderate quantity of wine, or even of alcohol, for sensibility is considerably diminished in the nervous system of relation; but when the fatigue has produced gastric irritation, the weakness should be treated only by drinks which are nourishing and by no means stimulant.

454. When debility predominates in cases of gastro-enteritis produced by excessive muscular exercise, and by the employment of stimulants, which are often abused in these cases, bleeding should be practised with moderation, and should always be local.

455. The extreme debility which results from excessive hunger, should be treated by moderate quantities of feculent decoctions, pap made with milk, light broths, &c. which should be increased with great circumspection, for indigestion and gastritis are very easily produced.

456. The external treatment of debility produced by cold is by frictions, with snow, ice, water quite cold, or which has been but slightly warmed, &c.; internally it is to be treated by diffusible stimulants, alcohol, distilled waters in moderate doses, but we must pass to demulcents, and even to bleeding and abstinence, upon the occurrence of febrile heat, for without this, inflammations of the viscera might be developed.

457. The debility caused by the cessation of respiration, is removed by the restoration of this function; for this a variety of methods may be used, according to the causes which have intercepted the passage of the air. Thus bleeding is proper in the pulmonary inflammations, mechanical strangulation, angina, aneurism, &c.; if the vessels are too full, while stimulants, external and internal, are useful after sub-

mersion, and in all cases of asphyxia, which equally demand the introduction of respirable air into the lungs.

458. When there exists an extreme debility, and a great depression of spirits, from the commencement of an acute affection, we may infer that the inflammation occupies a large extent in the organs either of respiration or digestion, or in both at once. If then a general or local bleeding proportioned to the strength and symptoms, diminishes, instead of increasing the strength, they should not be repeated, for it is a proof that the viscera which introduce the materials for the preservation of life, do not perform their office, and that the system has no longer any means of repairing great losses. Demulcents internally, and cold and revulsion externally, are the feeble resources left us in so unfortunate a case. (See the propositions upon typhus and gastro-enteritis.)

459. *Cyanosis* is sometimes produced by chronic gastro-enteritis, and is cured with it.

Sect. IV. *Corollaries.*

460. Empiric medicine, which consists in keeping an account of the symptoms that have been observed, and of the remedies which have been useful or injurious, without giving any physiological explanation is impracticable; because the injury of a single organ produces a great number of symptoms, which are combined with those that depend upon many others, in shades so various, that it is almost impossible to meet groups of symptoms in nature absolutely similar to those adopted as models. This confusion can be prevented, only by referring the symptoms to their respective organs.

461. In order to practise medicine successfully, it is necessary not only to refer symptoms to particular organs, but still to be able to determine in what these organs differ from the state of health; that is to say, the nature of the disease.

462. It should be from the nature of the disease that the

curative indications of the physician should be drawn. This is learned, 1st, from a knowledge of the modifying powers, which have increased, diminished, or changed in any manner whatever, the action of the organ originally affected; 2d, from knowing the influence of this organ upon others; 3d, from the knowledge of the modifying powers, which may restore the equilibrium, or at least diminish the intensity of the disease. The nature of diseases is to be derived then by the physician, from the appreciable physiological modifications of organs.

463. The groups of symptoms which are given as diseases, without referring them to the organs, on which they depend, or referring them to the organs, without having well determined the nature of the physiological aberration of these last, are metaphysical abstractions, which do not represent a constant, invariable morbid state, of which we can be sure of finding the model in nature; they are then factitious existences, and all who study medicine by this method, are *ontologists*.

464. To consider these factitious morbid existences as injurious powers, which act upon the organs, and modify them by producing such or such a disorder, is to mistake effects for causes; is ontology.

465. To consider the succession of symptoms which have been observed, as the necessary and invariable progress of the disease, and to derive from them characters essential to their diagnosis, and consequently to their treatment, is to create a factitious being; since the affections of organs are different, according to the modifying powers which act upon them: it is placing ourselves in the impossibility of treating the disease before its termination, without contradicting our own principles. This is always ontology.

466. To apply remedies to a factitious morbid existence, without appreciating their effects upon the organs receiving them, and upon those sympathising with them, is to cure or

exasperate a disease without knowing the reason or cause of it.

467. He who cures a disease, without having justly appreciated the physiological modifications, by means of which he has effected the cure, has no certainty of either recognizing or curing the disease when he again meets with it; whence it necessarily results, that neither the success nor reverses of ontologists can serve to render them good practitioners, or enable them to make others such.

468. The Propositions from 461 to 468, explain to us, why medicine has, till our own time, remained in darkness and uncertainty.

ART. II. *Observations on Yellow Fever, intended to prove the necessity and advantage of Blood-letting in its cure.* By HORATIO G. JAMESON, M. D. Physician to the late Board of Health, Baltimore.

1. IT has been customary for medical gentlemen who have written respecting our summer epidemics, to accompany their observations with some account of the topography of the neighbourhood in which they have appeared; together with meteorological observations. It must be admitted that these are subjects inseparably connected with a correct knowledge of bilious, or rather miasmatic diseases; but such is the amount and respectability of evidence already collected by physicians, in all countries, and in all ages, that every repetition of such facts seems little better than works of supererogation.

2. Feeling an entire conviction of the truth of the opinion I have just expressed, it may suffice, on my part, to remark, that in all the epidemics I have seen in Baltimore, and which may be considered as caused by miasmata, all the circumstances considered essential in the production of bilious fever, were most obviously present; these were, made

grounds, in marshy situations; foul wet cellars; hot dry weather, succeeding to wet springs productive of luxuriant vegetation; together with a number of days in which Fahrenheit's thermometer rose above 80 degrees.

3. Having resolved to pass over this part of my subject, I wish further to premise, that as this essay is intended as an exposition of my principles and practice in bilious diseases, and as my limits are necessarily confined to a reasonable portion of a medical journal, I shall not attempt any examination of the principles of those who have written more or less ably on the same subject. The examination of even a few of our most celebrated authors, would require more space than I intend to occupy at this time.

4. I believe, with the illustrious Rush, that no practitioner of medicine, however ignorant he may be, practises without cherishing theoretic views; and indeed the works of those who have written expressly with the view of decrying theory, show, that even they could not divest themselves of it. In medicine, to think is to theorise, consequently it will not be wondered at, after so many theories have been presented to the medical world, that I too should attempt the exposition of a theory, to support me in a practice, which, though by no means novel, is nevertheless new in part; or rather, I would say, many authors have shown us the path which leads to the haven of safety, but they have not furnished us with the means of persevering to the end of our journey, and hence we lose our patients by the way. I hope to add my theory to the means required, and thereby lead the unprejudiced, at least sometimes, through the dark tortuous paths in which some patients are now lost. In a word, a sound theory is most likely to lead to the most successful practice; and holding such an opinion, I shall proceed to speak first of my theory. I shall not stop to inquire whether this is the most eligible course, in all cases; but I believe, with Dr. Rush, that whatever may be said of them, those writers who have theorized most in medicine, have afforded most facts in their writings; and hence arises,

at least, one advantage from theorists. I do not wish, however, to be considered as promising to maintain the character which is here awarded to theorists; but if my facts are few, they are important; and whatever may be the fate of my principles, they are founded upon long reflection and ample opportunity for observation.

5. That assemblage of matter which constitutes the human body, is subject to two laws. These laws are the *vital* and *chemical*, both of which are only discoverable by their effects upon the living body; that is, we see their operation; but of their essential qualities we have no definite conceptions. Both of these laws exhibit numerous diversities or modifications, according to their association with different organs, sets of organs, or the whole animal economy. The former of these laws, as the term imports, maintains our existence; the latter is our perpetual enemy, or in other words, these two laws stand diametrically opposite to each other. By a preponderance of the first law, we are kept in health; by a preponderance of the second, we become diseased or die.

6. From these premises, we deduce the following conclusions: No part of the human body is ever stationary, whether considered in its compound parts or in its atomic materials. Between the *vital* and *chemical* laws there is, as it were, an incessant warfare. Chemical laws, like a watchful enemy to the human body, never sleep; as constant as is the faithful heart of man to beat the pulses of life, so constant is this enemy to assail him on every side; time itself is not more inexorable than this enemy to man.

7. Every organized part and atom is liable to be preyed upon by chemical laws, provided it is not continually sustained in opposite relations by vital influences; but the different parts of the body presenting a great diversity in their constituent and congregated structure, it will follow that the different parts of the human body will present as much difference in their ability to resist the encroachments of chemical laws, as they present differences in their respec-

tive formations. In pursuing this idea for the sake of illustration, we shall readily perceive, that after death has given to chemical laws their full operation, different parts of the body will, more or less, resist the destructive influence of these laws: for example, the osseous structure will resist in the greatest, and the blood in the least degree, the operation of chemical influences, while different parts will offer various intermediate grades of resistance. This needs no proof; every one knows how readily the blood runs into putrefaction.

8. I am of the opinion that facts and the soundest reflection, lead us to the conclusion that the same relative order in regard to chemical influences exists *before*, which we so obviously discern *after* death; that is, whenever the *vital* law is disturbed by the introduction or presence of morbific atoms within the system, chemical laws will commence their operation, and first, most certainly, upon the blood,* the substance of all those constituting the animal economy, the most loosely affined in its component parts. And, therefore, without waiting to give an opinion as to the vitality or non-vitality of the blood, I venture to assert that the blood is subject, in certain diseases, to deterioration. This, I think, is abundantly proved by the dissolved appearance of the blood in malignant fever, and occasionally in other diseases. In cases of mortification, there is now and then irrefragable proof of a vitiated state of the blood.

9. We have seen (8.) why so many great medical writers and practitioners, down to the present day, have been led to the belief of putrid diseases. Seeing the blood so obviously exhibiting marks of deterioration, in certain diseases which have been termed *putrid*, and the rapid tendency of the body to dissolution in those diseases, immediately after death, nothing could seem more natural than the conclusion, that the phenomena present were the result of actual pu-

* These remarks apply to miasmatic poison. The more violent poisons seem to destroy the economy of the brain, or some part of the nervous system. (31.)

trescence in the blood. That putrescence in the blood of animals, is wholly incompatible with their living condition, is a position, however, which has been incontrovertibly established; but unfortunately, those who have laboured most successfully to controvert such a doctrine, have gone too far, and have led us into an opposite error, by denying any deterioration whatever in the blood, calculated to modify our diseases.

10. To illustrate a theory which would serve to explain the phenomena, or the pathology of the various sorts of fever, would require a large volume. I shall, therefore, not attempt so extensive an examination of the subject, but content myself with endeavouring to throw some light upon the subject of yellow fever, and briefly noticing remittent and intermittent fevers, which so obviously arise from the same cause. But as I may, at some future period, extend my inquiries to other febrile diseases, I have thought proper to present, at this time, a syllabus of fevers in general; this will enable me, more conveniently, to show my opinion of yellow fever, in regard to its place in a scale of diseases more or less inflammatory.

11. I have adopted the following arrangement of fevers. Classes two, *idiopathic* and *symptomatic*. Orders two, *sthenic* and *asthenic*. I shall not pursue the symptomatic class any further at this time, but here present a synopsis of the idiopathic.

Class I.

Of Idiopathic Fevers.

12. Idiopathic Fevers may consist of two orders:

a. Of the sthenic *b*. Of the asthenic	} Orders.

The Sthenic order of the

c. Pseudo Remittent *d*. Remittent *e*. Intermittent	} Genera.

The Pseudo Remittent Genus of the

f. Synocha
g. Synochus
h. Synochoid
i. Gangrenous
j. Hectic
k. Occult
} Species.

The Remittent Genus of the

l. Synochus
m. Synochoid
} Species.

The Intermittent Genus of the

n. Synochus
o. Synochoid
p. Occult
} Species.

The Asthenic order may consist of the Pseudo Remittent Genus only, and this genus may comprehend the

q. Febricula
r. Typhus
s. Typhus Gravior
t. Gangrenous Typhodes
} Species.

13. From the foregoing arrangement, we have the following terms as applicable to fevers.

A. Pseudo Remittent Synocha
B. ——— ——— Synochus
C. ——— ——— Synochoid
D. ——— ——— Gangrenous
E. ——— ——— Hectic
F. ——— ——— Occult
G. Remittent Synochus
H. ——— Synochoid
I. Intermittent Synochus
J. ——— Synochoid
K. ——— Occult
} Sthenic Idiopathic.

L. Pseudo Remittent Febricula
M. ——— ——— Typhus
N. ——— ——— Typhus Gravior
O. ——— ——— Gangrenous Typhodes
} Asthenic Idiopathic.

14. I entertain a strong hope that the above arrangement will be found a convenient one for the purpose of examining this subject in one view, and for exhibiting the re-

lation which fevers have respectively to each other ; that it will serve as an outline or groundwork by means of which we may, in some sort, explore the intricate phenomena presented by these diseases. But to those who have ceased to look up to nosology as a practical guide, I need hardly mention the necessity of constantly bearing in mind, in addition to the perplexing complications of different species of fevers, owing to their running frequently into each other, that the greater number of them are sometimes original, and sometimes consecutive.

15. I believe that the distinction into sthenic and asthenic classes is well founded, and that therefore all diseases of the febrile kind must be, *ab initio*, diseases of oppression or exhaustion. But I have said, (14.) that fevers may be original or consecutive ; it follows, therefore, that diseases may change their type, and this accords with our experience, since we see diseases passing from an inflammatory to the typhus or typhoid nature, more commonly, and vice versa. All this, however, does not invalidate the position, that all diseases are, *ab initio*, either sthenic or asthenic, in their nature ; or, that all fevers are intrinsically in their primary state referrible to one or other of these conditions, not both ; consequently, although fevers of any particular sort may differ much in different habits, and under various circumstances, as to force or violence, still each class is invariably, *ab initio*, sthenic or asthenic, without any exception, so that we have only to place correctly, a disease in either of these classes, to know with certainty whether it requires a depleting or stimulating plan of treatment. The force or importance of this distinction appears immensely great, when we arrive at our conclusion, (viz.) that a disease, obviously sthenic or inflammatory, will be so in proportion as it is more violent or fatal, when compared with other diseases of the same genus. By such a chain of reasoning, it appears to me that we are bound to believe that yellow fever is, in general, a disease highly inflammatory.

16. I have said, (14.) that the arrangement of fevers

pointed out, (12, 13.) may be found convenient for examining them under one point of view; and for exhibiting the relationship which they respectively bear to each other. I have also said, (14.) that fevers may be original or consecutive; and, (15.) that all diseases may change their type, so that typhus grades of fever may run into the inflammatory, and the inflammatory into the typhus. From these assertions, it will follow, that I do not believe any nosological arrangement can be adopted which would enable us to lay down any general rule calculated to serve our practical purposes, when applied to individual cases. But what I have said does not, in the least, invalidate the opinion I have advanced, that nosology will enable us to lay down, with tolerable precision, general rules applicable to epidemics, which are characterized by their being referrible, at all times, to the same order and the same genus. (See 12.) This last observation is obviously applicable to yellow fever.

17. From what has been said in several of the preceding paragraphs, it will have been perceived that I am of the opinion that, although it may be useful to divide fevers of the same genus into different species, that nevertheless we are to look for intricate intermixtures in the various circumstances which serve to point out varieties. And hence, it will follow, taking yellow fever as an example, that we may expect to see this disease presenting all the varieties pointed out in the genus pseudo remittent. (12.) I shall endeavour, in the succeeding paragraph, to illustrate my ideas respecting the nature of the varieties of this genus, as they stand related to each other; from which illustration I hope to deduce some useful practical precepts.

18. I have selected the term pseudo remittent as a suitable one, in my opinion, for a generic name applicable to that form of miasmatic disease, commonly called yellow fever. The pseudo remittent genus has been divided into the following species or varieties: (13.) Synocha, Synochus, Synochoid, Gangrenous, Hectic, Occult. These varieties, I have said, are disposed to run into each other. I

shall now endeavour to explain the nature of their different relations; and for this purpose, think proper to avail myself of the observations of St. Pierre, upon the Newtonian explanation of the nature of light, as exhibited by the prism. Every one is aware that Sir Isaac Newton taught, that the rays of light are compounded of seven different colours, that the primitive colours are red, orange, yellow, green, blue, &c. St. Pierre has ingeniously advanced objections to the above theory, and says that several of the colours exhibited by the prism, are not primitive, but compound. For instance, he says, red and yellow are primitive, and cannot therefore be produced by the mixture of any other colours; but that the intermediate colour is compounded of the red and yellow, and that you have only to blend a portion of red and yellow, to produce orange. That the green, which lies between the yellow and the blue, is compounded of those two colours, &c.; and thus he reduces the primitive colours to three. I need not pursue these speculations upon the prism any further. What I have said respecting them will serve to illustrate my views of the relation in which the different varieties of miasmatic diseases stand with each other. I believe, with Newton, that there are seven primitive colours; but still they are so inseparably blended, that there is not only much plausibility in the objections of the French philosopher, but indeed, a sort of intercommunion between some of the prismatic colours, which renders it absolutely impossible to point out, precisely, the lines of separation; yet, in nature, they do exist. Then, by a parity of reasoning, we are led to conclude, that however difficult an actual separation of the different varieties of the pseudo remittent genus of fevers might be, that still they do exist. That is, in the first case, we are bound by the soundest observation, supported by experiments, to believe the Newtonian theory to be correct, notwithstanding the plausible objections of St. Pierre. In the second case, we are bound by a careful observance of facts, aided by sound reflection, to believe that there is, in the nature of yellow fever, an

absolute division into different species; but such is the intricacy occasioned by a great variety of accidental circumstances, that an actual division into varieties is often difficult, and sometimes impossible.

19. It seems necessary, here, to point out a few of the most striking symptoms and circumstances by which the different species or grades of yellow fever may, in most instances, be determined. My limits will not admit, however, of my speaking any further on this part of my subject, than merely to notice a few of the most prominent distinguishing marks. I am not aware that there is any symptom by which we might venture, a priori, to pronounce a case of yellow fever to be of the synocha grade; but when the disease becomes epidemic, and violent symptoms are common, which yield with tolerable certainty to depletion, we may venture to consider the disease as being of that grade. The more ordinary appearances of inflammatory diseases will also serve to distinguish this grade of the yellow fever. I cannot stop to particularize; but what I have already said cannot fail to have a useful practical influence, since every epidemic of the sort in question, will, in the main, partake of one grade. This circumstance does not always extend through a whole season; since we have the clearest evidence that, in the yellow fever of 1793, in Philadelphia, the disease seems to have partaken, during the greater part of the season, of the gangrenous grade; towards the close, it became obviously more distinctly inflammatory. Sydenham tells us that he was generally much perplexed at the beginning of a new epidemic, and that his patients were exposed to danger till he had adopted a suitable plan of treatment for that peculiar sort of disease, and then he went on with more ease to himself and safety to his patients; and this is the grand desideratum in yellow fever. I believe few, or perhaps, no cases of the synocha grade of this fever, end fatally before the fifth day.

20. The next variety to be noticed is the synochus. (See

f. 12, B. 13.) This variety, as the term imports, holds an intermediate grade between the synocha and gangrenous. It may serve to facilitate my explanations here, to refer to what has been said (18.) respecting the manner in which the prismatic rays of light run into each other. The analogy there pointed out, is strong between the place which the orange ray in the prismatic view, and that of the synochus, respectively hold; the first being inseparably blended with the red and yellow rays, and the latter being, in like manner, inseparable from the synocha and gangrenous, between which grades it (the synochus) is placed. And yet it is sufficiently obvious that these distinctions exist in nature. It may suffice to say further of the synochus, that being a disease of less force than the synocha or the gangrenous varieties, an epidemic, which is, in the main, of the synochus grade, will be, of all fevers in this genus, the least fatal. Hence, whether it terminate in recovery or death, its duration will be longer, and fewer will die. It is highly important, in a practical point of view, to bear in mind, the existence of this grade of fever; for if we believe such a grade peculiar to the yellow fever of some seasons, and acknowledge the truth of the assertion which I have just made, that its duration will be longer and its violence less, we may deduce therefrom a useful practical precept, viz. that our remedies are not required in that force which a disease of a synocha or gangrenous character, insidiously undermining the system in the livery of the occult, (*k.* 12, F. 13.) would require. And therefore by ascertaining, at an early period of an epidemic, that its type is synochus, we should proceed on a more clear and safe course of treatment; but we must never lose sight of the fact noticed in some of the preceding paragraphs, that whatever may be the prevailing grade, there will always be exceptions; hence, the necessity of extreme caution and vigilance on the part of the physician. The extreme difficulty of treating yellow fever skilfully, arises chiefly from the intricate manner in which the several varieties are blended together, and from the

frequent deviations from the prevailing grade which occur, and which may be resembled to a sort of monstrosity. Individual cases of the disease, which now and then assume this sort of gigantic monstrosity, will perhaps always serve to furnish more or less of the opprobrium medicorum.

21. The synochoid variety is next in order. (See 12, 13.) It may be said of this grade that it is a disease manifesting a greater degree of prostration than the synochus. It differs from the synocha and synochus grades, by presenting an earlier brownish sordes upon the tongue and teeth, greater slowness in its progress, like the synochus, and less remarkable exacerbations. But being somewhat allied to the gangrenous, it is a more dangerous disease than the synochus. We are to expect, in this form of the disease, a strong tendency towards typhus, a disease which, it will be perceived, (12, 13.) belongs to the asthenic order. And hence it is, that in this grade we are to expect more advantage from stimulants than in the other grades. And I venture the assertion, that, in seasons in which stimulants are early admissible in this disease, its prevailing cast will be synochoid. The fever of 1798, in Philadelphia, in which Dr. Rush used emetics, laudanum, wine, &c. was of this grade. But my subject is too extensive to allow of my doing more than merely exciting others to a closer investigation of the different varieties of this formidable disease. It seems necessary, however, to notice the circumstance here, that the synochoid has some tendency to run into the gangrenous, and in proportion as it tends to this, so will its duration be shortened, and the danger increased.

22. The most dangerous form of yellow fever is the next in the order of my arrangement, (*i.* 12, D. 13.) The disease sometimes assumes this awful form as its prevailing cast; and it is in such epidemics that death triumphs, with appalling horrors, over the healing art. This form of the disease often terminates in death on the third day, sometimes in a single paroxysm. The blood-shot eye, the ghastly countenance, the mahogany hue, the silent, unsuspicious,

though prostrated state of the patient, or a state of indescribable suffering, the shattered, the absent, the full, rapid, labouring pulse, the fiery red tongue, the glassy, tearful eye, the death-like feel of the flesh, cold skin, the black vomit, profuse hemorrhages, the violent hiccup, raving delirium, subsultus, the yellow colour preceding the mahogany, petechiæ, insatiable thirst, great ardor of the skin, or the opposite state :—these, more or less of which present themselves in every form of yellow fever, appear arrayed in all their horrid strength, in the gangrenous species of the disease. Of such an awful train of symptoms, is formed the gangrenous variety of yellow fever. The reader will, however, observe that there is one or two opposite circumstances noticed in the foregoing list of symptoms; where one symptom is present, the opposite one must, of course, be absent. But in addition to all this gloomy picture of the gangrenous form of yellow fever, we find, on dissection, the stomach, the liver, the intestines, &c. actually eroded, or exhibiting marks of high inflammation; the blood dissolved, when drawn from a vein, as well as in the large vessels and heart, immediately after death. This form of the disease will probably always prove highly fatal; but I hope to prove, in the course of this essay, that it is inflammatory, and that a part of its mortality has been owing, in some degree, to too irresolute a use, or to a total abandonment, of the lancet and other depleting remedies.

23. The hectic variety of yellow fever, (*j*. 12, E. 13.) never occurs as the governing form of this fever, but only where other forms terminate in glandular affections, in abscess of the liver, in mortification of one of the extremities. In some instances it arises from a torpor remaining in the liver, as manifested by an unusual continuance of a deep yellow colour of the skin. When effusion has taken place in the chest or abdomen, the hectic form of fever is almost certain to supervene, and renders such cases generally very obstinate, and sometimes fatal, after very protracted suffer-

ing. This condition of things, I believe, is too often lost sight of; for if we are compelled to admit that we have comparatively little influence over hectic fever, a knowledge of its existence will, at least, often prevent us from prescribing too officiously for such cases.

24. The only remaining variety of the yellow fever is the occult. (12, 13.) This, like the hectic, noticed in the preceding paragraph, is never to be seen as the governing form of an epidemic. These two varieties of the pseudo remittent genus of fever, are more common in some other diseases than in yellow fever, as for example, in consumption, diarrhœa, &c.; but these diseases I must dismiss without further remark. Sydenham, in speaking of his fever, "turned inwards," and Rush of his misplaced fever, afford us an insight into the occult species. Rush, somewhere speaks of walking cases of yellow fever; and there have been many instances in Baltimore and other places, of persons walking about, almost unconscious of any serious indisposition, till a few hours before their dissolution. This explanation is sufficient, at present, to show my ideas of the nature of the occult form of yellow fever. It must appear obvious, on a moment's reflection, that it behoves every physician to bear in mind this form of the disease, and to examine his walking as well as his lying patients, in yellow fever, with more solicitude and care than in any ordinary disease; otherwise, while he feels at ease, because his patient is going about, or at least declaring himself in a state of rapid recovery, the insidious form of fever now in view, may be preparing a heart-rending disappointment to himself and the relatives of some worthy member of society; and amid his painful reflections upon so unexpected a catastrophe, he may find his sufferings made more poignant from a belief, that had he been aware of the danger of the disease at an early period, it might, most probably, have been divested of its deadly force. I shall now return to more general principles connected with my subject.

25. I entertain the belief, that when the human system is

invaded by disease, it is owing to the introduction of morbific atoms, (see 5, 6, 7, 8.) or to the presence of morbific atoms generated within. In the first condition of things, the function of some particular viscus is disturbed; this functional disturbance may be termed a *lapsus functionis*, and will lead to what has been called undue excitement, engorgement, congestion, plethora, suffocated excitement, &c. The danger in this state of things, will be proportioned to the extent of the lapsus functionis, because this diminution of functional energy will favour the development of chemical laws capable of acting upon fluids arrested in their progress. In the second case, some agent, such as fatigue, cold, heat, poor living, unwholesome air, and the depressing passions, acts immediately upon some viscus, (owing to its being in a weaker state than other parts of the system,) or acts mediately through the circulating system by general fever, so that in either case, a state of things must exist which leads to a lapsus functionis in some viscus: that is, the lapsus functionis may involve, in its influence, the general system, or some particular system, as the cerebral, the nervous, lymphatic, sanguiferous, capillary, &c.

26. A disease may be generated by the reception, into the system, of morbific atoms, which may, in consequence, give rise to the generation of other atoms serving to derange the function of some viscus or system. And these secondary atoms, so generated, may be similar to the primary, as in small-pox, syphilis, &c.; but more commonly dissimilar, as in bilious diseases. Hence it is, that the first sort of diseases may be communicated by contagion, and that the latter cannot; for the morbific atoms, in this case, being the effect of chemical laws operating upon them, they become vitiated secretions, having no power to injure any one, otherwise than by their mere irritant properties; and their influence is confined to the system in which they are generated.

27. What has been called the remote, I shall denominate the exciting cause of disease, and this cause has the three

following distinctions: *a.* Morbific atoms introduced from without; *b.* Morbific atoms added to those from without, in consequence of the first producing a lapsus functionis, and thereby favouring chemical influences; *c.* Diseases arising from impressions made upon the body by external agents. In the sort *a*, we may enumerate common bilious, remittent, and intermittent fevers. In these cases, we find, that, although the liver and stomach are slightly involved in the disease, still there is no lapsus functionis produced, sufficient to let in chemical laws, so as to lead to congestion or a high state of excitement. This genus of fever, (see 12.) exerts its force chiefly upon the capillary system. In the sort *b*, may be noticed yellow fever. Here we see extraneous atoms admitted, sufficiently embodied to produce a dangerous lapsus functionis of the liver and the whole of the chylopoietic viscera, by which, in violent cases, a part of their membranous structure is actually eroded; and not only does congestion of the liver and the other viscera implicated, exist; but they are so much impaired in their functions as to produce, first, vitiated secretions, and afterwards slight chemical changes in the whole circulating fluids, but more especially the blood. And our experience teaches us that in proportion as these chemical changes prevail, so does the danger of the disease increase. I would, however, wish here to be understood to mean, in general, very slight chemical changes; for so much, in my opinion, are chemical laws at variance with the vital laws of the system, that any considerable changes will produce fatal consequences. Still, I believe, that in all cases of fever, there exists a lapsus functionis in some part of the body, which characterizes the disease. The sort of disease *c*, noticed in this paragraph, as arising from the impression of external bodies, does not come under the genus of fever now under consideration, but often exists as a disease consecutive to the remittent and intermittent genus of bilious maladies; and it is by such causes that remittents and intermittents are sometimes protracted into the winter months. Among

these external agents may be noticed cold, intemperance, &c. But it seems probable that, even in these cases, the original disease leaves something of the lapsus functionis in some part of the system. It may not be amiss, also, to notice in this place, that diseases of this sort, (which, it will be perceived, includes the ordinary inflammatory diseases,) present less appearances of deterioration in the blood, and that this circumstance arises, in great measure, from the free depletion which is so commonly practised. It is not unusual for some of the most severe inflammatory diseases of common grade, to be attended by hemorrhages and a dissolved state of the blood, as also to exhibit a remarkable tendency towards the putrefaction of the body after death, where free depletion has not been practised.

28. Having progressed thus far, I am met by a momentous question. Is yellow fever caused by the inhalation of miasmata into the lungs, and their transmission from thence into the blood; and does the blood, so affected, afterwards occasion derangement of the chylopoietic viscera; or does the gas inhaled, derange the system, by acting immediately upon the nervous system of the lungs? Or, is it not more probable that the morbific atoms, usually termed miasmata, are blended with the saliva, and with it conveyed into the stomach? I am led to believe, from an examination of the circumstances attending the disease and its phenomena, that the latter mode is the one by which the poison invades the system. We may never have it in our power satisfactorily to decide this question; but it is undoubtedly one which requires our most serious attention; since a decision of this point might enable us to use measures of prevention.

29. There is another pathological question relating to yellow fever, which, in whatever way we suppose the miasmatic poison to be introduced, is involved in much obscurity. Does the poison act first upon the vascular system of the chylopoietic viscera, as a peculiar and organized set of viscera, and produce there, first, the lapsus functionis, congestion, and vitiated secretions, as a consequence; or

does it exercise its action immediately upon the nervous system of these viscera, and having impaired their vital operations, afterwards extend its influence to the brain, thus prostrating the whole animal economy? These are questions which we shall probably never be enabled to solve.

30. My limits forbid my making any further remarks on the subject noticed in the preceding paragraph; but it seems still necessary that I should say a word or two about sympathy, and a few other terms which have been much used in medical language. Can we attach any meaning to the word sympathy, other than that, wherever it exists, there must be some corresponding change in the parts concerned, in regard to their material nature? I presume there cannot; and in order briefly to illustrate my ideas of sympathy, I shall state a case. This being a speculating subject, I can only examine it by analogical reasoning. Let us suppose a wound to have been produced in a tendon or nerve of a finger, and that it has been succeeded by tetanus as a consequence. If a metallic point has been the impinging cause, we know that that body is liable to be in different states, in regard to magnetism and electricity; then, as it may be devoid of these principles, hold them in different forces, separately or conjoined; and as the parts wounded, are subject to these same principles, or at least the electric vital operations, &c. it will follow, that as these respective principles may be in different degrees, and differ as well in force as in modification; and as the part injured may be, at the moment, differently situated in regard to the vital operations which are going on, the part injured first, and afterwards other parts of the nervous system, will be thrown into this disorder and disease. Such disease will not, however, be the result of an imaginary something without any actual existence; but the result of actual change in regard to corporeal parts. The animal body being a compound structure, no action, no principle of action, no change can occur in that structure, without the actual transmission of some corporeal agent from part to part, as they are found

to sympathise. I do not wish to be understood as intimating that the magnetic principle or the electric fluid, have actually any agency in these cases; but as we see that some of the metals hold two principles, possessing powers which, though active, are nevertheless wholly concealed, except in their effects, there is good ground for believing that many other principles exist, which may, or may not be present in any body, with which a wound is inflicted. After witnessing the powerful agency of the two principles already noticed, it is more rational to suppose that many other hidden principles exist, which may be introduced into the body by the wound, than to believe in the existence of a sort of blind sympathy. Let us look at the effects of the poison of venomous animals, of the prussic acid, the canine virus, and the many other articles which might be noticed; how can we philosophically account for their action? In no other way, in my opinion, than by supposing that there is, in all these cases, a poison introduced, and however difficult it may seem, to believe that any thing is conveyed to the brain when an animal is made to take the prussic acid; still such a belief is more rational than to suppose that there can be a correspondent action, or association of action, between two distant parts of the system, in any other way than by some material agent. Can we reasonably believe that the prussic acid applied to the tongue, can prostrate the cerebral functions, without actually transmitting some atomic agent from the tongue to the brain? In a word, nothing seems more reasonable to me than the belief, that in all cases of violent action in the animal system, from the application of poison, *chemical laws* are made to subvert the *vital.*

31. I have, in the preceding paragraph, noticed two principles which have long been known to be material, the magnetic and electric fluids. These principles are easily discoverable by their effects, and yet their presence is concealed from our senses, except as we witness their chemical changes. Every one is aware of the inconceivable facility

with which the electrical fluid passes through animal bodies, and of the wonderful affinity existing between the loadstone and iron. After seeing the phenomena of these powerful, though concealed agents, what difficulty can there be in believing that the prussic acid and all other deleterious agents act, by their chemical affinities, upon the brain or other parts subject to their influence. In other words, I believe that no diseased action takes place in the human body, or can exist there, otherwise than through the agency of matter. Matter which, in its nature, is capable of throwing the system into disease, does so by depriving some part of it, in some measure, of its vital energies; such a change constitutes a lapsus functionis, more or less perfect in proportion as the deleterious agent is powerful in its destructive influence. Then, the result of any injury inflicted upon the body, will depend upon the power of the vital operations to overcome, by a sort of reaction, the lapsus functionis; or, in other words, the power of the deleterious agent to subvert the vital laws, must produce a disease more or less violent or fatal, according to its power to inflict injury, by inducing chemical changes. If the agent be capable of instant subversion of the vital principle of the brain, instant death is the consequence, as is exemplified in the effects of the prussic acid.

32. In support of my opinion, that all sympathetic actions are the result of chemical agents, I might advert to the wonderful phenomena attending the chemical affinities of colours. If a single drop of an alkaline solution is capable of destroying a large quantity of some of the delicate vegetable colours, to what should we ascribe such a change? Is it not, most manifestly, owing to new affinities occurring? Availing ourselves of analogies so striking, have we not the soundest reason for believing that great and important changes may be produced in the animal body by agents equally capable, or even more likely, from appearance, to produce such an effect?

33. Let no one infer, from what I have said, that I make

allusion, in the foregoing reflections, to the materiality of the soul. I have, long since, published my opinion to the contrary. There is, resident in the human body, a vital principle common, under certain modifications, to all animals; but in addition to this principle, we are taught by Revelation, that man is endowed with an immortal spirit. Upon this spirit, the dissolution of the body can have no other effect than to dissolve the union of soul and body. If my limits allowed, it would be easy to prove the divisibility of the vital principle; but to imagine such a property in a spiritual existence, would be an absurdity.

34. My theoretic views have extended, notwithstanding my wish to the contrary, far beyond the limits I had assigned them; but still my theory remains greatly defective, as well from its brevity, as from the difficulties attending the subject. I wish it to be viewed rather as the groundwork of a system which could only be illustrated in a more elaborate work. It now remains for me to treat of the more practical part of my subject; but, in doing this, I must, of necessity, occasionally advert to the principles which I have advanced; these references shall, however, be as brief as the nature of my subject will admit.

35. I consider the four following positions respecting bilious fever as having been settled; a few medical men holding opinions to the contrary notwithstanding. 1. Intermittent, Remittent, and Pseudo Remittent (or malignant) forms of fever, are the offspring of one and the same cause. 2. This cause is deleterious gases arising from vegetable matter in a state of putrefactive fermentation, or rather some modification of that kind of fermentation. 3. The vegetable matrix alluded to, requires the agency of a temperature of the atmosphere, above 80 degrees, in addition to moisture,* &c. 4. The Intermittent, Remittent, and Pseudo Remittent forms of bilious fever, generally exist in the same

* To this there are exceptions. Chemical operations, in the soil, may produce the gas, and cause it to exhale into an atmosphere of low temperature.

places at the same time, and in the same families. This remark was strongly exemplified in the fever of 1793, in Philadelphia, as we see by the writings of Dr. Rush; and, indeed, so many examples might be collected, as renders any further remarks unnecessary. This state of things has been present in all the epidemics which have existed at Baltimore the last few summers, but more especially during the last.

36. It seems proper to remark here, that intermittent and remittent forms of bilious fever often exist, unaccompanied by the malignant form; and hence, the porpriety of placing these different forms of fever as different genera. But the reverse of this is equally true, that the malignant form of bilious fever, or what has usually been called yellow fever, never exists without the other two forms.

37. The circumstance first noticed, has been considered by many, as a weighty objection against the belief of the domestic origin of yellow fever, and also against the belief that there exists a near affinity between the remittent, intermittent, and pseudo remittent forms of fever. Independently of the mass of testimony calculated to prove the identity of the cause of the different forms of fever under consideration, there is the strongest analogical proof afforded by chemical combination, that such may be the fact. Chemical combination furnishes analogies which are not only plausible, but which throw over this subject as strong an appearance of certainty as, from the nature of things, it can be expected. I allude, here, to the interesting fact long since announced to the world by Lavoisier, that the acids generally are susceptible of two well marked modifications, that each of these modifications have their peculiar affinities, and that any given acid is constituted of the same elementary ingredients in both its modifications. Thus sulphur, when decomposed by a slow combustion, combines with so much oxygen as is requisite for forming the sulphureous acid. By a more rapid combustion, sulphur combines with an additional quantity of oxygen, and the product is sul-

phuric acid. Now, we should never have supposed, a priori, that two simple substances would, by a small difference in the circumstances attending their admixture, afford substances having well marked, but dissimilar affinities. But we should naturally be led to an opposite conclusion, that sulphur and oxygen would afford compounds differing according to the various proportions in which the two constituent parts might differ; it is not more singular than true, however, that sulphur and oxygen enter into actual combination in two states, affording only two distinctly marked acids. With so strongly marked analogies before us, all difficulty must be removed as to the same constituent parts of miasmatic poison, producing combinations which shall differ as much from each other, as do the products of different doses of oxygen, with the several bases of the different acids. There is no difficulty in admitting, upon sound philosophical principles, that the same elementary substances may, under certain circumstances, enter into a combination producing a compound which shall have the property of exciting yellow fever, and another modification of the same substances, having the property of producing the milder forms of bilious diseases.

38. Besides the reasonableness of the opinion, that the same elementary substances may enter into different combinations, affording poisons so far dissimilar, as to act upon the human system with a difference of force capable of giving rise to simple intermittent and remittent, or malignant forms of fever, there is good grounds for believing that bilious maladies are sometimes modified by circumstances connected with the animal economy, which may produce different forms of the disease, from the poison in the same state of chemical combination. I have said that bilious diseases are occasioned by the reception of a poisonous gas into the human body, and that this poison leads to the production of deleterious fluids within, owing to the vital operations being in some degree subverted by chemical influences; hence arises a new source of danger. In order

to illustrate my opinion, I shall imagine a case. Suppose a person to have received a portion of miasmatic poison which causes an attack of ordinary bilious remittent, and that measures are taken to arrest the disease, or that nothing is done to interrupt nature in throwing it off. Then suppose, that instead of the above state of things, the patient, already in a high state of fever, is confined in a close, ill ventilated room, takes stimulant medicines and drinks, and under an apprehension of debility, avoids all evacuations; what will be the result? A malignant fever, in many instances. How is this simple state of fever converted into the malignant? By the production of a lapsus functionis, which causes a species of stagnation or congestion in the vascular system of the chylopoietic viscera; this again produces vitiated secretions, and these, in their turn, become new irritants, which have the property of more and more deteriorating the fluids, and thus prepare the way for the subversion of the vital by the chemical laws. We have, consequently, two methods of accounting, philosophically, for the different forms of bilious fever growing out of the same exciting cause.* 1. The elementary constituents of the poison may combine in different proportions, and thus produce two states or kinds of the poison; or, 2. the same poison acting upon the human system under different circumstances, may produce a disease which shall be more or less violent, as the circumstances of the case shall conspire, more or less, to the generation of deleterious atoms within.

39. I have, in many of the preceding paragraphs, spoken of chemical changes in the fluids, of a deterioration of the blood, &c. It seems, therefore, necessary that I should, before proceeding to the more strictly practical part of my subject, adopt a suitable epithet for that state of the fluids of which I have spoken, under the term deterioration. I have not been able to apply one capable of conveying my

* What is here termed the exciting cause has been usually called, by schoolmen, the remote cause.

ideas clearly, and which, at the same time, shall be sufficiently simple and convenient; but the terms *Læsio Sanguinis*, seem to express my ideas in such manner as to avoid the risk of being much misunderstood. It may be necessary, however, to remark, that under the term *Sanguinis*, I include all the animal fluids susceptible of undergoing the process of assimilation. By the expressions læsio sanguinis, it will obviously appear that I not only mean that the blood is in itself deteriorated, but also so greatly changed in its properties, as to become a morbid stimulus (in certain cases) to the solids.

40. My theory, when applied to practical purposes, is reduced to this, that in cases of bilious fever, of whatever form, the first effect of the miasmatic poison is to produce a state of lapsus functionis. And if this state of lapsus functionis is not removed in proper time by the natural powers of the system, or by medical treatment, we shall have a second stage of the disease, to wit, the læsio sanguinis.

41. By reference to 18, it will be seen that I am of the opinion that the different forms of bilious fever are so variously blended, that no distinction can be pointed out by nosological arrangements, enabling us to prescribe for individual cases. This difficulty exists, as respects the two conditions of the system pointed out in the preceding paragraph, since they are often blended. But there is not much difficulty in discovering such distinction as will lead us to useful practical conclusions. I shall endeavour to throw some light upon this subject, by analogizing my ideas with a few surgical facts. When there is a transverse fracture of the femur, provided the limb be laid out on a plane, there can be no displacement, except laterally. But if the fracture be oblique, and the limb be laid on a plane, we shall not only have a breach of the continuity of the bone, but in a short time we shall have superadded to it a shortening of the limb from the contraction of the muscles. In the first case, then, we are to enjoin rest and a latteral support to the

thigh; in the second case, we must add additional forces *in extenso;* so that in this last case, there is an injury of a two-fold nature, and requiring an apparatus having a two-fold action. And this is precisely the state of things in regard to the lapsus functionis and the læsio sanguinis. The lapsus functionis must always precede, or at least occur simultaneously with the disease; and if by proper treatment, we arrest this latter during the stage of simple lapsus functionis, we then cure the disease in what Dr. Rush has termed the forming state. If, however, the attack is violent, and not promptly and correctly treated, the system is speedily thrown into the second condition, or state of læsio sanguinis. Here then we have two indications to fulfil, to wit: by removing the lapsus functionis, we shall prevent the further progress of the læsio sanguinis; but if the latter state of things has already taken place, it may exist with, or without the former. If both conditions be present, the lapsus functionis and the læsio sanguinis, we have not only to arrest the former in its progress, but also to remove the latter. And again, if the lapsus functionis be obstinate, and continue to exist simultaneously with the læsio sanguinis, we have to contend with two morbid conditions of the whole, or of some part of the system.

42. As I must, for the present, draw my observations rapidly to a close, I shall now proceed to speak of my practical views, by noticing a few of the most prominent remedies employed in the treatment of yellow fever. But in my observations respecting these, I shall be compelled to notice slightly my theoretic views, as they are intimately connected with the employment of such remedies as I shall recommend.

43. Among the most prominent remedies in the treatment of yellow fever, is blood-letting. I have, already, in some of the preceding paragraphs, asserted, as my opinion, that yellow fever is at all times, and in all places, *ab initio*, a disease of the sthenic character. Admitting this, all difficulty is removed as to the propriety and utility of blood-letting

during the forming stage, (or that which I have denominated the lapsus functionis,) since all enlightened practitioners agree in the advantage derived from the free use of the lancet in well marked inflammatory diseases. And if my limits did not forbid, it would be easy to cite many of the highest medical authorities in support of the necessity and advantages of free bleeding in yellow fever. In the first stage of yellow fever, then, I would bleed to remove a state of lapsus functionis of the chylopoietic viscera, and thereby expect to prevent congestion and its consequence, the læsio sanguinis. If the abstraction of blood leads to recovery, which will often be the case, where it is judiciously employed, the disease will not attain its complete formation; for, strictly speaking, the yellow fever is not malignant in its character until the læsio sanguinis shall have been superadded to a state of lapsus functionis.

44. Such cases as have been described in the preceding paragraph, will generally be viewed as cases of common remittents; yet, nothing seems more manifest than that cases of bilious fever, excited by that kind of miasmatic poison which produces yellow fever, are often by prompt and judicious treatment, arrested before the system is brought into that state of derangement constituting malignant fever.

45. But if the disease, in the state of lapsus functionis, be neglected, or improperly treated by stimulants; or if the disease attack the system in the occult form already noticed, (12, 13, 24.) the state of læsio sanguinis is now superadded, and a new train of morbid actions invades the system. But we are not allowed to suppose that the inflammatory condition of the system has disappeared, when the second train of morbid actions prevails; on the contrary, I believe that the transmission into the blood, of the poison originally taken in, or generated within,* gives rise to a new inflammatory impulse; and if the patient should hap-

* When I speak of poison generated within, I mean that it is produced by the morbid influence of miasmata previously received into the body. (38. last clause.)

pen, fortunately, to be bled at this critical juncture, the most happy result may, in many instances, be anticipated. In such a case, the loss of blood may, wholly or partially, arrest the disease, or it may prepare the blood-vessels to receive a new, morbid, and overwhelming stimulus, with less injury to the system, since the blood will circulate more equally, and impinge with its new stimulus less forcibly against the tender structure of the brain, capillaries, &c.

46. It follows, from what has been said in the preceding paragraph, that in many cases, we shall, by abstracting blood, fulfil a two-fold indication in regard to the inflammatory diathesis which then prevails; that is, the loss of blood is calculated, in a high degree, to remove the lapsus functionis of the chylopoietic viscera, and also to lessen the inflammatory diathesis of the general system. Hence it is, that we so often experience such decided advantages from blood-letting, at an early period of malignant fever.

47. There is, however, great difficulty in distinguishing between the different states of the system, which have been pointed out; this difficulty, moreover, is likely to continue to exist, and there is therefore strong grounds for believing, that this disease will always prove a very fatal one. We have no criterion by which we can, with much certainty, ascertain at what time the læsio sanguinis commences. In the occult form, the disease has reached this dangerous stage before the patient is aware of any serious indisposition; and in many other cases of the gangrenous form, such is the overwhelming force of the poison, or the rapidity and extent of the læsio sanguinis, that in a few hours the blood has undergone such chemical changes as are incompatible with animal life. In some cases, however, of this form of the fever, the patient may be rescued from death by a prompt and judicious treatment.

48. So far as I have spoken, in the preceding paragraph, in favour of blood-letting, the most experienced physicians, I presume, will agree with me in opinion, as to the advantage of that practice in individual cases of an inflammatory

character, as also in a majority of epidemics, presenting the appearance of strong inflammatory action. But I have been induced to think, from my acquaintance with the views and practice of a large portion of the profession, that there still exists much ambiguity, doubt, and even opposition to the employment of blood-letting during the second stage of the diseases, or in cases where it has exerted its force unopposed, till there supervenes extreme prostration, hemorrhage, and other unequivocal evidences of a malignant disease.

49. I have been induced to enter into the foregoing speculations, chiefly to remove the objections, fears, and prejudices which hang over this part of my subject. If I have succeeded in establishing my views respecting chemical changes which bring about the læsio sanguinis, and my belief that the blood, in this state, is calculated to act as a morbid stimulus of a most destructive kind, there will then be no difficulty in admitting the propriety and advantage of bleeding in the second or advanced stage of yellow fever. In the beginning of the disease, we bleed to prevent the consequences which we know will result from inflammation, congestion, &c. When the morbific stimulus which gave rise to a state of lapsus functionis, and congestion or inflammation of the chylopoietic viscera begins to diffuse its destructive influence over the general system, and thereby leads to a renewal, or rather an extension of inflammatory action over the general system, blood-letting affords us advantages of incalculable value. And again, when the disease has arrived at a period still more dangerous, and when all the phenomena present seem to require stimulants and cordials, blood-letting may still be practised on reasonable principles, and will often arrest the disease which stimulants would render still more certainly fatal.

50. I have been contending that the natural course of the yellow fever is to deteriorate the blood. If this fluid has become so deteriorated, and is acting upon the solids as a morbid stimulus of a most destructive kind, how can we rationally expect to cure the disease by giving stimulants?

These will only add to the excess of stimulus already present. What remedies afford a rational hope in the removal of such a state of disease? I answer, blood-letting and calomel; and I am almost prepared to say, blood-letting and calomel only. If my premises are correct, we must abstract blood, because it has become itself a morbid stimulus, the removal of which will enable the natural powers of the system, aided by stimulants, to overcome the disease.

51. In my opinion, nothing is more clear in the treatment of malignant fever, than the advantage which may be obtained from blood-letting, even in the second or advanced stage of the disease. But our experience teaches us with equal clearness, that to abstract blood at this period, as we ought to do in the early stage of the disease, would prove destructive. The solids, including the vascular system, are now in a state of debility, and cannot accommodate themselves to the sudden abstraction of a large quantity of blood; we must therefore carefully remember, that we now bleed for no other purpose than that of removing a portion of blood which very imperfectly serves the purposes of the animal economy, and thus prepare the way for the introduction of new and more healthy stimuli. But if we abstract any considerable quantity of blood at once, we thereby produce a state of collapse, and add to the dangers of the case; by abstracting blood frequently, and in very small quantity at a time, we will soon relieve the vessels of a portion of offending matter. There being naturally a disposition in the assimilating system to increase its action whenever the vessels are reasonably exhausted, there will be an increased and renewed effort, if the vital powers are not too much prostrated, to replenish the circulating system; and this tendency will so far dispose to a more healthy action in the general system. This opinion derives support from the fact noticed by Dr. Cullen, that bleeding, under certain circumstances, will induce plethora. My limits do not admit of any further examination into this part of my subject than merely to cite the account of Riverius, respecting his curing

malignant fever at Montpellier, by small and frequent bleedings, after having tried all the usual remedies in vain; and to say I have experienced a happy result from the employment of a similar method of treatment.

52. It is necessary to bear in mind here, that whenever, in cases of yellow fever, the læsio sanguinis has become fully established, the case must be imminently dangerous, and will very often, and perhaps, in a majority of instances, terminate fatally. This circumstance has exercised considerable influence in deterring physicians from employing blood-letting in the early stage of the disease, with that freedom which is often necessary, or from using it at all, in the more advanced periods. But every epidemic which I have seen has, more and more, confirmed me in the opinion, that blood-letting has been viewed with distrust, and often charged with producing the fatal termination of a case which it was beyond the power of the medical art to arrest. Thus, a patient in the advanced stage of the disease is bled, still his case progresses to its fatal career, and no sooner is the patient found to be dying or dead, than the physician and the relatives begin to wish that blood-letting had not been employed. Those interested look around; persons are seen to die who were not bled; nevertheless, the prejudices of the relatives too often prevail, and they still wish to indulge a hope that something must have been done amiss, or their dear friend might have enjoyed longer days. The physician, sensible of this, and often aware too, that the most clamorous and ignorant quacks will now find minds ready to receive their condemnation of blood-letting, is naturally led to doubt, himself, the propriety of the remedy; and if he even feels satisfied in his own mind that the patient could not have recovered under any plan of treatment, he will sometimes be led to conclude that, as the disease at a certain period is almost invariably fatal, he is encountering popular prejudice without hopes of benefit from the use of the remedy, sufficiently great to compensate for the loss of reputation which he may sustain. But

besides the reasons I have alleged, as calculated to deter physicians from bleeding in the advanced stage of yellow fever, he will feel at a loss for a rational theory to justify such a practice, as well as for precedents sufficiently strong to support him, in the event of a fatal termination of the disease.

53. I trust, if I have not already offered a theory, both rational and satisfactory, that when my reasonings shall have been completed, and confirmed by authorities, no one will fear to make a sufficient trial of my advice, by which, alone he can judge of its merits. That there is abundant reason for investigating this subject anew, and with redoubled zeal, in order that nothing may be left untried to prevent the ravages made by the disease under consideration, must, I think, be admitted. For my own part, I have no hesitation in saying that, although many will die during all violent epidemics, under any method of treatment, there will, nevertheless, be found a considerable difference in favour of blood-letting, when judiciously employed.

54. Notwithstanding all I have said respecting the advantages likely to be derived from blood-letting, in the cure of yellow fever, still we are not to lose sight of the importance of a few other remedies. Among these may be noticed, first, purgatives. In the employment of these, I think I am fully warranted in saying that calomel, or calomel and jalap, or these rendered more active by a portion of gamboge, are not only the best, but perhaps the only articles which can be depended upon at the commencement of the disease. These medicines in combination, or the calomel alone, when given in such quantities as to evacuate the bowels freely, not only have the effect of removing the vitiated secretions now so abundantly accumulated in the biliary vessels, the intestines and the stomach; but, by exciting a new action in the secretory vessels and glands, of promoting more bland and copious secretion; thus tending to retard or prevent the occurrence of the læsio sanguinis. This view of the subject accords well with the remarks of Dr.

Rush, that purgatives are useful, and ought to be continued throughout the disease. The point seems to have been well settled that calomel exerts something like a specific action over the chylopoietic viscera in bilious fever; and there is abundant reason for believing, that in small doses, carried, if necessary, through the bowels with castor oil, senna and crem. tart., sulph. magnesia, &c. it is admirably well suited to the intention of removing vitiated secretions,—relieving, at the same time, the state of lapsus functionis of the chylopoietic viscera, and thereby prevent, not only the formation of the læsio sanguinis, but also such chemical changes in the contents of the stomach and bowels, or in the minute vessels of these organs as may, and often do occasion erosion of the inner coat of these organs.

55. The circumstance which I have noticed in the preceding paragraph, is one of the highest importance in the phenomena peculiar to yellow fever. This symptom accounts in a great measure for the almost invariable inefficacy of stimulants. From the post mortem appearances, which are so often seen after violent and rapid cases of malignant fever, we are fully warranted in drawing the conclusion, that if the inner surface of the stomach and intestines be often found highly inflamed, or even eroded, and if we often discover marks of high inflammation of the liver, &c. in all cases terminating suddenly, and indeed in all fatal cases, there must have been a state of violent inflammation during the life of the patient, although it may not be visible after death. Then, if I am correct in my opinion, that this state of high inflammatory action invariably exists, all surprise will cease at the inutility of stimulants; nay further, if the above positions be true, stimulants must almost invariably be injurious; and indeed our experience teaches us, that in severe bilious epidemics, stimulants almost invariably do harm; in confirmation of which, I shall only at this time cite the account of the yellow fever of '93 as given by Dr. Rush.

56. There can be no difficulty in believing that a high

state of inflammation may have existed during the life of the patient, which shall leave no traces after death. Many facts might be noticed, derived from the highest authorities, and which show that this state of things occasionally presents itself in diseases now universally acknowledged, in this country, to be inflammatory; among these may be noticed, croup, dropsy of the brain, &c. But besides, we must not loose sight of the fact, that the absence of erosion or other marks of previous high inflammatory action, is very often owing to free depletion by the lancet, to purgatives, or both.

57. Let us suppose a patient in the last stage of the disease, that is, in whom the læsio sanguinis has been pretty fully confirmed; here then, according to my view, we have local inflammation of the chylopoietic viscera, if not actual erosion; we have a deteriorated blood, which, although it still serves the purposes of the animal economy, is, nevertheless, now acting upon the system as a general and hurtful stimulus; we have an accumulation of acrimonious secretions deposited not only in the alimentary tubes, but also in the vascular system, where they act as hurtful irritants. How then are we to relieve such a patient? Not by stimulants and cordials; on the contrary, these are found, generally, to do harm. Not by giving calomel in excessive doses, nor by using mild aliment and drinks; for the stomach, and other chylopoietic viscera are the seat of the disease, and if they have passed through an inflammatory stage, there will now be a state of debility of their vascular, nervous, and glandular structure, sufficient to interrupt their natural action; moreover, there still exists something of the lapsus functionis, liable to aggravation from articles taken into the stomach, (whether food or medicine,) and which, instead of producing their wonted influence, act as irritants. Nor is this effect to be accomplished by giving nostrums, such as charcoal, turpentine, yeast, &c. These, and all similar remedies, can have no other effect than merely to remove, by chemically decomposing them, the morbific

secretions lodged, and continually forming in the alimentary canal. It is true, this is accomplishing, in part, our intention of cure; since the removal of such vitiated secretion will carry out of the body a mass of chemical fluids which are lodged in that part of the body upon which the disease in question concentrates its principal force.

57. Let us again bring to view the case which was presented in the beginning of the preceding paragraph, that is, a case of yellow fever in its advanced stage. Here we have a state of læsio sanguinis, rapidly tending to a dissolution of the system. The first measure to be taken in this case is, to detract a small quantity of blood; the circulating system will thereby be relieved in some measure of its labours, and a portion of morbid stimulus, which must unduly irritate the brain and nervous system, will be removed. By using, at the same time, small doses of calomel and other aperients, we not only remove sordes that are present, but by continuing these articles, prevent the accumulation of foul secretions, and produce a revulsion or retrograde action in the exhalants which must considerably retard the absorption of morbific atoms into the general circulation. Then, as I have already contended, by unloading the blood-vessels and thereby reducing the circulation to a more natural state, we increase the chance of a more efficient operation in the assimilating system. But we are carefully to bear in mind that there is, in these cases, much to fear else we abstract too suddenly those articles that are acting as stimulants upon the system, and thereby produce a state of dangerous collapse. To avoid this, we should take but from three to six ounces of blood, and repeat the operation every one, two, or three hours, according to circumstances. And if these evacuations are followed by appearances of debility, we may exhibit small doses of opiates with the most beneficial effects. We should not overlook the fact, that there is as much to fear from excessive purging, as from the abstraction of blood, and that laudanum in small repeated doses, is here also the most suitable remedy.

58. I am aware that Dr. Cullen has somewhere laid it down as a sound and established rule of practice, never to use opiates where blood-letting is indicated. This is most certainly correct as regards the treatment of diseases of ordinary inflammatory grade; but in the peculiar state of things which I have just pointed out, the practice is not only admissible, but highly advantageous. Having by the above plan of treatment (aided by the mildest bland drinks, in small quantities, and frequently repeated) relieved the system of a portion of the hurtful chemical fluids, and thereby obviated the erosion or destructive congestion or inflammation of the chylopoietic viscera; we may now venture to allow some of the mildest nutriments, such as sago, tapioca, weak broths, panada, mild cordials, &c.

59. It will readily appear that I have not entered into a detail of the symptoms of the disease in question, nor pointed out the occasional symptoms which now and then call for some palliative remedies; all this is unavoidably omitted for the present. The subject under consideration is as extensive and difficult as it is important; so that, although I have already far exceeded my intended limits, I have not been able to present so fully as I deem necessary, the groundwork of my principles and practice; of course, my illustrations, authorities, and facts in relation to cases, particular epidemics, and malignant epidemics in general, must all remain for some other opportunity.*

60. I hope no one can misunderstand me in regard to my views of chemical changes in the system. I regard all chemical changes within the living body as more or less hurtful, and that no disease can be checked, no symptom removed, except by means of the physiological operations of the system. I do not mean however by these expressions exactly what has been called the anima medica, vis medicatrix, &c. I cannot here enter into any further explanations,

* I wish the reader to understand that all I have hitherto said, respecting the læsio sanguinis, relates to yellow fever.

but content myself with remarking, that the expression, *vis a tergo*, comes nearer expressing my notion of the manner in which disease is thrown off. I am wholly opposed to the belief of any thing like the medicina hermetica, from a firm conviction that chemical agents may do violence to the system, and that it is to the vital principle we owe all living operations, as well in a state of disease as in health.

ART. III. *An Account of the Medical Institutions of Berlin.* By T. F. ANDREWS, M. D. of Norfolk, Virginia.

MEDICAL men universally agree in the opinion, that none, but those who exercise the greatest industry, perseverance and regularity in the prosecution of their professional studies, can ever acquire that proficiency, which alone enables us to discharge effectually our responsible duties to our fellow-creatures. Of all the sciences and arts, to which the necessities of man have directed his attention, none are so intricate, extensive, and (I may add) important as the study and practice of medicine in its numerous branches; hence the origin of those numerous systems, which, from the time of Hippocrates down to the present period, have appeared, and have had for their object the abridgment of our labours, by simplifying our ideas of the action of the healthy and diseased body. In all medical schools some particular system is observed, otherwise it would be impossible either to teach or to learn such a science as medicine, composed, as it is, of so many different branches intimately linked together, but sufficiently distinct from each other to render it necessary that they should be taught separately. It is not sufficient for the student to visit hospitals, attend lectures, and toil over his book by the midnight lamp; he must also adopt a well digested system of study, which will introduce him, by regular gradations, from the more

simple to the more complicated branches of the profession. The student naturally looks to his teachers for a system; and this should be as simple as possible, otherwise it will prove more injurious than useful, by compelling him to consume much of his time in acquiring that, which ought to diminish, instead of augmenting his labours.

The medical school of Berlin ranks among the first in Europe, for the number and learning of its professors, the excellence of its hospital, and the superiority and number of its clinical classes. In no school whatever, are the professors more learned or indefatigable, and in none is more system observed.

The medical institutions of Berlin are, 1. A Faculty of Medicine, comprehending several professorships, at the Royal University; 2. The Hospital of the Charity, to which are attached the clinical professorships of Medicine, Surgery, and Obstetrics; 3. The Clinical Hospital of Medicine, Surgery and the diseases of the eyes; 4. The Royal Military Academy of Medicine; 5. A Medical Society of Physicians and Surgeons; 6. A Pharmaceutical Society; 7. Several public libraries; and 8. The Botanical Garden, the Museum of Anatomy and of Natural History.

The Royal University was founded by the present King of Prussia, and put into operation on the 15th Oct. 1810. It is one of the finest buildings that the city can boast of, being formerly the palace of Prince Henry of Prussia, brother of Frederick the Great. The basement story is entirely occupied by the classes, and the rest of the building, with the exception of a large magnificent hall, intended for public examinations, is filled by the museums of anatomy and natural history. The professors are distinguished into ordinary and extraordinary. Any member of the Royal Academy of Sciences, may officiate as a professor.

There are four faculties, viz. Theology, Jurisprudence, Medicine, and Philosophy. The professor of elocution publishes at the begining of each course a list of the lectures, by order of the rector and academic senate of the

university. It is the duty of the rector to matriculate all those students who attach themselves to the university; but before he allows them to matriculate, he requires a promise of obedience to the statutes of the institution. Its students constitute a distinct class of the community, and are in most cases governed by a code of laws peculiar to it. A member of the Chamber of Justice of the town, is generally nominated judge of the university; he decides in all cases of duels, (except when some wounds or death are the result,) quarrels, and other disorders which may arise between the students; but if the condemned party wishes to appeal to the ordinary tribunals, he has the privilege of doing so. Each faculty has a deacon and two courses of lectures yearly, the winter course beginning on the 15th of October, and ending on the 20th of March; the spring course beginning on the 8th of April, and ending on the 17th of August. Each professor is compelled to deliver a public and gratuitous course every season, which, however, is generally very imperfect and uninteresting; but these defects are completely remedied in their private lectures, which all of them give in a perfectly systematic manner. Their private courses cost from one to four frederick d'ors each. The following branches are taught by the medical faculty:

WINTER COURSE.

Professor GRÆFE—*Publicly*, On diseases of the eyes. *Privately*, Surgical operations and demonstrations upon the dead body.

Professor BERENDS—*Publicly*, Explanation of Celsus' writings. *Privately*, The remedies and cure of female complaints.

Professor HORKEL—*Publicly*, Animal electricity. *Privately*, General Physiology.

Professor HUFELAND—Therapeutics.

Professor KNAPE—*Publicly*, Syndesmology. *Privately*, Osteology, Splanchnology, Forensic medicine, and Anatomical demonstrations and dissections.

Professor KOREFF—*Publicly*, Physiology. *Privately*, Natural History of man.

Professor LINK—*Publicly*, on Cryptogamous plants. *Privately*, Pharmacologia.
Professor RUDOLPHI—*Publicly*, Anatomy of the organs of sense. *Privately*, Anatomy of the healthy body, Pathological Anatomy, and anatomical demonstrations.
Professor SIEBOLD—*Publicly*, History of Midwifery. *Privately*, Theory and Practice of Midwifery.
Professor WOLFART—*Publicly*, The art of prescribing. *Privately*, Animal Magnetism.

In addition to the above private and public courses, by the ordinary professors, there are many others delivered during the winter session, by the extraordinary professors, F. Hufeland, E. Osann, G. H. Reich, G. A. Richter, J. N. Rush, G. Wagner, and C. F. Wilberg. The ordinary professors rank higher, and receive larger salaries than the extraordinary; from the latter, the former are selected as vacancies occur.

The same ordinary and extraordinary professors, whom we have named, deliver the spring courses, which are merely continuations of those of the preceding winter. The classification of medical studies, as adopted in Berlin, it has been seen, differs materially from that we have been accustomed to; and I must confess that I do not approve of it as much as of that which is adopted in the American and English schools. The former is too complicated; its divisions and subdivisions are too numerous, and by no means well defined; a circumstance that must distract the attention greatly, and thereby prove a very serious obstacle to the progress of the student. A foreigner would find the classification of the Berlin school, very tedious and perplexing; but the Germans appear not to be much incommoded by it, at least not sufficiently so as to attempt any innovation. It is unnecessary for me to speak of the merits of the professors; their reputations are well known to the medical world to be inferior to none; and I can confidently assert, that a Hufeland, a Graëfe, a Berends, and a Rudolphi, are, of themselves, without the assistance of their learned colleagues,

sufficient to render the University of Berlin as celebrated as any of the present day. This institution stands unrivalled in its clinical professorships and establishments, which are conducted with more system and regularity than those of France or England. The clinical professors of Berlin, duly appreciate the importance of their duties, which they discharge with the greatest honour to themselves and advantage to their pupils. None, who are at all attentive to this essential branch of their profession, can possibly fail of becoming tolerably conversant with the most approved mode of practice in every department of physic, which the best and most learned medical men of Berlin pursue. There are two clinical professorships at the University, three at the Hospital of Charity, and two at the Clinical hospital. In this place, I shall merely notice those at the University, reserving my remarks upon the others, until I treat of the establishments of which they form a part. The clinical professorships of the university consist in one of medicine and one of surgery. Professor Hufeland fills the medical chair, and Professor Bernstein the surgical; both of these gentlemen are advantageously known abroad, through their excellent works upon medical and surgical science. A lecture is delivered daily, by each professor, throughout these courses, which continue eight or nine months, and are equally useful to the public at large, and to the students, as they dispense health and comfort to the former, and instruction to the latter. With the exception, that the professor explains the nature and symptoms of the disease of each patient, the clinical courses resemble much the dispensaries of England, but they are infinitely more instructive. At a regular hour daily, each professor meets his pupils in the class-room, where they place themselves around a large table, leaving a seat for the patients, who are introduced separately from an antichamber, to which they repair at the lecture hour. When the patient is seated, the professor calls upon any one pupil to examine him, and ascertain the disease, which being done, the

pupil declares aloud, in the Latin tongue, his diagnostic, prognostic, and methodus curandi, when the professor, if necessary, interrogates both the patient and pupil, and explains the disease in all its bearings; after which, the pupil writes the prescription, reads it to the class, and hands it to the professor for his signature, who gives it to the patient to carry to the apothecary of the university. The same patient is directed to attend every morning, to be examined in the same way by the same pupil, until the cure be completed.

All the pupils take a patient in rotation, and are expected to attend every morning, in order to report the state of the patient under their charge. If the patients are unable to attend, after having been at the university, the pupils under whose care they were placed in the first instance, are required to visit them at their houses, and report their situations to the professors, who authorize them to prescribe, and send their prescriptions to any of the apothecaries appointed to furnish the poor. We are not to conclude that the poor of Berlin are maltreated, by being placed under the direction of the students; for none but those who have made considerable professional progress, are intrusted with such important duties. Every student must have passed through the above clinical discipline, before he can become a candidate for graduation. It is obvious, from what we have stated, that no physician of the University of Berlin, can be ignorant of the practical part of his profession; but that, on the contrary, all of them must, before graduation, have been practitioners on a small scale, under the immediate direction of their teacher.

Hospital of Charity. This building is admirably well calculated for the purposes of an hospital; it forms the four sides of a square, enclosing a large piece of land laid out in gardens, gravel walks, and grass plats, for the recreation and exercise of the convalescents. It is three stories high; its basement story is appropriated for bathing-rooms, store, wash-rooms, and kitchen. The second and third stories

are divided into rooms of various sizes, for the accommodation of from two to thirty or forty patients. Each room or ward, (except those which are very small,) is furnished with two attentive nurses, who sleep and eat in their respective wards, and keep a regular night and day watch. Each ward has two or more closets, for the reception and safe keeping of its own bed-linen, blankets, hospital dresses, plates, knives, forks, &c. All those articles are distributed to the wards, in exact proportion to the number of beds in each. At the side of each bed, there is a small table and chair, for the use of the patient of that bed. Some of the bedsteads are made of iron, but the greater proportion are of wood. All the beds are filled with barley-straw, which is burnt and replaced, before new patients make use of them, with the view of cleanliness, and preventing the appearance of contagious diseases. The hospital is divided into five distinct departments, viz. medical, surgical, cutaneous and venereal, obstetric and lunatic. Each of these is again subdivided into male and female departments; and in the medical, two wards are exclusively appropriated to males and females afflicted by contagious febrile diseases. The hospital can accommodate about eight hundred patients; but there are rarely more than seven hundred in it at any one time. It is supported by government and small sums which some of the patients pay monthly. The indigent are admitted, and cured gratis, upon the recommendation of the dispensary physicians of the town; and those inhabitants of Berlin, and strangers, who are not actually destitute, are required to pay from one to three Prussian dollars per month, for the benefit of the house. The poor, or gratuitous patients, are placed in the longer wards, and those who pay, in the smaller; but there is no difference whatever in the medical attention of the two classes, and very little in their nourishment and indulgences. The king's apothecary furnishes all the medicines required by the hospital, at the expense of government. All students of medicine and surgery, and female pupils of midwifery, are

allowed to attend the practice of the hospital, upon paying the fee of the respective clinical professors.

There are three clinical professorships at this hospital, all of which are attached to the university, and form a part of it. A first and second physician, a first and second surgeon, four pensioners, or assistant surgeons, and nineteen house pupils, are attached to the service of the hospital. The first physician and first surgeon, are the clinical professors of medicine and surgery. The assistant surgeons are young surgeons of the army, who have been educated in the military academy of medicine, and sent to the hospital for six months as house pupils, and then to the army one or two years, as surgeons' mates; after which service, they are returned to the hospital as assistant surgeons and physicians; and after serving some time as such, are nominated regimental surgeons and physicians. The house pupils are young men who are educated at the king's expense, in the military academy of medicine, where they remain four years, and attend lectures upon every branch of learning and medicine; after this they are examined, and if found competent, sent to the hospital as house pupils. The duty of the assistant physicians and surgeons, is to attend the usual visits of the physicians and surgeons, and also to assist them, if required, in the performance of their duty. The house pupils likewise attend the visits of the physicians and surgeons, write down the prescriptions, and administer the remedies. They also note the symptoms of the patients of their wards, and report the same to the physician or surgeon, at their regular visits. In the medical and surgical departments, a male and female ward are selected for the purpose of instruction. In these wards the most interesting and important cases are placed; over the head of each bed, a black board, a foot square, is hung, upon which are written the name of the patient,—his age,—the day of attack and of admission; the symptoms,—diagnostic, and lastly, the remedies administered; all these particulars are rigidly observed, and every change that takes place, from day to day,

is put upon the board, so that at a glance the physician and pupils can recall to their memories, every thing regarding the state of the patient on the preceding day, and compare it with his present situation. At eight o'clock every morning, (Sunday excepted,) Dr. Neumann, the clinical professor of medicine, meets his class in the medical clinical ward, where he lectures upon each case, more or less particularly, according to its importance. Every patient of the clinical ward is put under the immediate management of an out-door pupil. Whenever a new patient is admitted, Dr. N. calls upon one of the out-door pupils to interrogate and examine him, and to give a diagnostic of the disease and its methodus curandi, which he confirms, alters, or disapproves of, after having discussed the subject in all its bearings. The same pupil is compelled to perform the above office to the patient throughout his malady, and to keep an account upon the black board, of all the symptoms appearing, and the remedies used from day to day. Dr. Rush, the professor of clinical surgery, and Dr. Klugel, professor of midwifery, exercise their out-door pupils in the same manner every morning, at separate hours, so that any individual may attend all the clinical lectures and exercises, (if desirable,) during the season. The professor of clinical surgery instructs his pupils to operate both upon the dead and living subject. The professor of midwifery, makes his pupils deliver, in rotation, all the women of the obstetric department.

The situations of assistants and house pupils of the hospital, are filled by individuals intended for the army, who have been educated for that particular purpose, at the expense of government; thus, those very instructive situations are completely beyond the reach of the civil or out-door pupils, who, however, as we have seen, have a most excellent opportunity of informing themselves thoroughly in every branch of medicine; as they may, by attending a couple of courses of the clinical lectures of the hospital, acquire a good idea of disease in all its forms, and the proper

method of treating them. About 3000 patients are received annually in the hospital, 500 of whom die. The bill of mortality is very great; and it may be accounted for, in a way more creditable to German practice, than appears at first sight. I have already stated that the poor are admitted to the hospital upon the recommendation of the dispensary, or poor-physicians of the city, who, of course, cure all the slighter diseases, without separating their patients from their homes and friends, and only send those severely afflicted, to the hospital, where they are better nursed, dieted, and attended to, than they possibly could be at home.

Clinical hospital of medicine, surgery, and the diseases of the eyes. This excellent institution is under the direction of Dr. Berends, professor of clinical medicine, and Dr. Graefe, professor of surgery and the diseases of the eyes; it contains about thirty beds, which are equally divided between the medical and surgical wards. This hospital may be regarded both as a hospital and dispensary, as it partakes of the character of the two. As to the clinical institution of the university, the poor inhabitants of Berlin repair to this at a certain hour every day, for advice and medicines. If they are not able to visit the hospital every day, a bed is alloted them in the male or female ward of either department, as the case may be; but no incurable, and very few chronic cases are admitted, otherwise the limited number of beds might be entirely engrossed by them, to the exclusion of others more instructive and important. All those who require operations, are operated upon in the surgical amphitheatre, and in the presence of the whole class. Professor Berends exercises his pupils precisely in the same manner as Professor Hufeland at the university, and Professor Neumann at the Charity. Those patients who are retained in the house, are each attended by the student who examined him in the first instance, twice a day, and he reports the state of his patient every morning to the professor, who then visits him, and makes those remarks which he may deem proper, at the bed-side before the class. Those pupils only, who

have previously attended Professor Berends' lectures, and evinced a sufficient degree of talents and information, are entrusted with the care of the patients. Professor Graefe observes the same plan with his students, always preferring those who display the most learning, industry and skill; he allows them to perform operations of any kind, under his immediate direction and the observation of their colleagues. Before the student operates, he gives a short description of the disease, its diagnostic, prognostic, and explains the method and necessity of the operation, after which he takes charge of the patient till cured, visiting him twice a day, and reporting his case to Dr. Graefe every morning before Dr. G. pays his visit. Although there are but thirty beds in this institution, a vast number of out and in-door patients are treated there annually, and a great number of operations are performed by Dr. Graefe and his pupils. The surgical skill of the professor attracts multitudes who require operations, which he performs with as much dexterity and success as the first French or English surgeons. A house physician and surgeon reside in the clinical hospital, who direct and superintend the pupils, nurses, &c. in the performance of their respective duties. The expenses of the house are defrayed by government. The professors are not remunerated for their services, as physicians and surgeons, but receive a fee from each pupil, except those who belong to the Military Academy of Medicine, for whom they are paid by the king.

The Royal Military Academy of Medicine and Surgery, is an institution entirely independent of those already spoken of; it was founded, not many years past, for the exclusive purpose of boarding, lodging, and educating youths for the profession, to serve in the army. The sons of officers are most generally selected to receive the benefits of the academy, where they are taught all the branches of a general and professional education. A regular set of professors is attached to it, who examine their pupils every year publicly. After having remained in the academy four years, they are

(if found sufficiently well informed) sent to the Hospital of Charity to act as house pupils for the term of six months, and are then divided between the professors of clinical medicine, surgery, and obstetrics, but more particularly the two former: no one pupil continues the whole six months under either of them; on the contrary, that time is equally divided between them, so that the students have an equal opportunity of acquiring practical information in medicine and surgery.

The military academy is placed under the direction of the surgeon-general of the army. During a part of the four years that the students remain in the academy, they frequent as out-door pupils, the clinical lectures of the university, hospital, and clinical institution, where they enjoy all the opportunities offered to the civil pupils. The military academy furnishes all the medical officers of the army, and I believe that civil physicians or surgeons, are never or rarely appointed to serve in that body. In a government so perfectly military, as that of Prussia, the army must necessarily be an object of primary consideration; hence it is that the government is so very solicitous to procure it the best informed medical men, who receive gratuitously their support, general and professional education, together with all the practical advantages of the hospital, from many of which, citizens are entirely excluded. Notwithstanding, however, that government takes so much pains to instruct the pupils of the academy, it is said that after having served in the army four or five years as regimental surgeons, they are at liberty to resign.

The Medical Society of Berlin, is composed of resident and foreign members, who may be, indiscriminately, physicians or surgeons. Professor Hufeland and Dr. Heim, are its president and vice-president. It meets every fortnight at the house of the president, to converse upon medical subjects, and to hear a dissertation read by a member, who performs the task in rotation. Strangers may be introduced to the sitting, by a member.

The Pharmaceutical Society, is composed of apothecaries and chemists. It meets twice a week, when a lecture is delivered upon pharmacy or chemistry. The celebrated Klaproth and Bergmann, are presidents of this society. A complete course of lectures upon pharmacy, chemistry, and botany, is delivered during the sittings of the society. A large library, complete herbarium, and a large collection of specimens of drugs and medicines, belong to it. A fund is raised and reserved by the society, for the purpose of relieving those of its members, who may have been overtaken by misfortune, without any misconduct on their part. An influential member is appointed to obtain situations for young druggists out of employment; to him applications may be made by those who wish assistants, as well as those who are in want of employment.

Libraries.—There are several very extensive public libraries in Berlin, in which all students are allowed to read at certain hours every day; and if recommended by any one of the professors, they are permitted to take the books to their lodgings, upon condition that they return them uninjured.

The Anatomical Museum of the University, is principally formed by the vast and beautiful museum of the celebrated anatomist Walther, who sold it to the king for the use of the university. It is particularly remarkable for a great number of beautiful preparations of the nerves and blood-vessels, and contains numerous pathological preparations, and a large collection of rare monstrosities. Professor Rudolphi has added to the museum, his very valuable and unique collection of intestinal worms. The anatomical museum is open twice a week, for the benefit of the students, and once for the gratification of public curiosity. All the preparations are in an excellent state of preservation, and well arranged, each being furnished with a label explaining its nature.

The Museum of Zoology of the University, contains, 1st, the fishes and amphibious animals, which belonged to the

celebrated naturalist Block. 2d, The collection of birds and insects of Dr. Reimer. 3d, The beautiful collection of crustaceæ of Mr. Herbel. 4th. The zoophyta of Mr. Gerresheim. 5th, A great number of South American quadrupeds and birds, presented by Count Hoffmensegg. 6th, A great number of Siberian birds, collected by the celebrated naturalist, Pallas,—of animals brought from the Cape of Good Hope, by Professor Lichtenstein; and lastly, a fine assemblage of insects. The whole forms a very large and complete museum, tastefully arranged, and fully adequate to the purpose of enabling the student to acquire a precise knowledge of zoology.

The Museum of Mineralogy, is very large, and formed of two distinct collections, viz. a systematic and a topographical. The first contains all the classes, orders, genera, species, and varieties of mineral productions, properly classed, according to the system of Werner. In the second, we find the minerals of Prussia, Germany, Russia, England, Sweden, and Norway, arranged separately.

The manner of graduating at the University of Berlin, differs very materially from that observed in other universities; being more difficult and much more perfect. He, who obtains from the university, a diploma, and a license to practise, must be well acquainted with his profession, both theoretically and practically; as the examinations which he undergoes previously, prove, beyond all doubt, his capacity. I have often heard it asserted, and believed, that no academic trials could sufficiently test the capability of any medical man to perform the responsible duties of the healing art; and the opinion is certainly correct, if we restrict it merely to the examinations of the schools of this country, and of almost all those of Europe; but I am perfectly satisfied that the manner of examining students in Berlin, is fully calculated to reveal their real talents. By the statutes of the university, students are obliged to study four years, during which, they must have attended, at least, one course on each branch of medicine taught in the university, certi-

ficates of which, they must be furnished with from the professors. The four years being completed, and certificates obtained, the student petitions the deacon of the faculty for examination; upon which the deacon examines him on every branch of medicine, in the latin tongue. Some questions must be answered verbally, others in writing. If, from this preparatory examination, the deacon judge the candidate capable, he appoints a day for his appearance before the faculty; but if he be not capable, the deacon decides the length of time he shall continue his studies, before appearing again. The candidate, having been permitted by the deacon to continue his trials, is examined by four or more of the professors, upon any branch of medicine; after which he is authorized to print his thesis, which may be defended publicly; and if successful in this, he obtains his diploma; but the mere fact of possessing a diploma, does not, of itself, entitle the graduate to practise medicine or surgery within the Prussian dominions. Before he can become a practitioner, he is required to pass through another ordeal, which consists of a public anatomical exercise under Professor Rudolphi, and a clinical course of practice, under Professor Newmann, at the hospital. These exercises are termed, a *cursus anatomicus*, and a *cursus clinicus;* in the first, the graduate must dissect, and demonstrate publicly, a part of the body, at the option of the professor, and deliver an anatomical lecture upon any subject which the professor thinks proper to select. If the anatomical professor be satisfied with the anatomical knowledge of the candidate, he is permitted to commence the cursus clinicus, at the hospital, where Professor Newmann selects two cases for him to treat during four weeks, and if they should be cured, or die before the term expires, they are replaced by others. Every day, the candidate visits his patients, notes their symptoms, the remedies used, and makes his remarks upon each of them. The four weeks having expired, Professor Newmann grants a certificate of the graduate's attendance and good conduct, and sends this journal of cases of the *cursus clinicus*, to Pro-

fessor Hufeland, who examines it, and reports according to its merits, when the candidate is subjected to a final examination upon practical medicine, before Professors Hufeland, Newmann, Knoffe, Knoner, and Elhart. If the candidate pass this last examination satisfactorily, he receives a license to practise in any part of the kingdom or elsewhere. The degree of doctor of medicine is granted by the university; whereas the license to practise must be procured from the professors of the cursus clinicus and cursus anatomicus, which are independent of the university; the professors of the cursus being appointed by the king, for the express purpose of granting licenses. No one can become a candidate for a license, unless he has previously received the diploma of a doctor of medicine; and any person, with that qualification, whether Prussian or foreigner, is allowed to begin the anatomical and clinical courses.

It is obvious, that any one who has passed the trials necessary to graduate and obtain a license to practise, must be well informed in his profession; since he is obliged to give the most satisfactory proofs of his theoretical and practical knowledge, before he is allowed to enter upon the duties of his profession. A student may easily describe a disease and its proper treatment, or give a very exact description of the anatomical structure of any part, without having a perfect knowledge of either; but it would be impossible for him to dissect and demonstrate it, or treat a disease skilfully, three or four weeks, without understanding them thoroughly.

ART. IV. *A Case of Encysted Dropsy.* Read before the Georgia Medical Society, on the first of March, 1823, by J. S. HABERSHAM, M. D. of Savannah. (Communicated by Dr. Ducachet, of New-York.)

MRS. E. K., the subject of this distressing disease, consulted me some time in 1821, and gave a history of her case as follows:

In the year 1805, some time subsequent to the birth of her only child, she discovered a tumour of small size, in the left hypochondrium, distinctly to be felt, when she made pressure above the ilium. The tumour continued stationary for several years; becoming, however, occasionally painful, though more particularly after much exercise. She experienced no other inconvenience, until about the year 1819, when she perceived that the enlargement was progressing, and continued gradually extending towards the pubis; it then became again stationary. She could now discover an enlargement in the right side, commencing, as did the former in the left. I cannot account for this fact in any other way, than by viewing it as a translation of disease, from one ovarium to the other. In taking any unusual exercise, she felt such pain, as prevented her resting on the right side. The urinary secretion, which had never before been materially deranged, in a few months, and in proportion to the enlargement of the tumour, lessened considerably in quantity, and required some efforts for its discharge. Mrs. K. now felt great pain in the back; her respiration was laborious, and she became much distressed when pressure was made about the scrobiculus cordis. Her catamenial discharge continued uninterrupted, and in the usual quantity. At this time she submitted her case to an empiric, who treated it as a nervous disease. She then took additional advice, and was informed that she was becoming dropsical; she was accordingly treated with diuretics, though without experiencing

the least relief. Her urine was still voided in very small quantities. The tumour had now become so much enlarged, that she was sensible, from its fluctuation, that it contained water; and being now satisfied that her case was dropsical, she strenuously adhered to the diuretic plan, and cheerfully took the remedies suggested. She was now advised to undergo a course of mercury, and persisted in its use, until ptyalism was carried to an extent, which proved that the disease was not to be conquered by that medicine, whether used as an alterative or as a salivant. Having used, for a long time, a great variety of diuretics, and tried the most drastic cathartics without advantage, she was now advised to visit New-York, under the hope that some benefit might be gained, by applying to a physician who was reported to have been very successful in the treatment of dropsical diseases. Her case was again viewed as an ascites, and she had the courage to submit to a thorough, but inefficient course of remedies. She now became hopeless, and resolved to submit her case to Dr. Hosack, with a fixed determination, to undergo any remedy his enlightened judgment should suggest. As she was furnished with a written opinion of her case, I have transcribed it with her permission.

"Mrs. K.'s complaint consists, in my opinion, of a tumour in the abdominal cavity, probably of a sarcomatous nature, accompanied with a serous collection, produced by the tumour. Shortly after her arrival, the collection of water was so great, that Dr. Kisam and myself thought proper to evacuate it, and drew off about two quarts. Our chief attention has been directed to the means of preserving her general strength, and increasing the urinary discharge, which is diminished by the determination to the abdominal cavity." It was proposed that the tumour should be punctured, to which she readily assented. The operation was performed in the left linea semilunaris, higher up than usual, and they must have punctured the left ovarium, as will be shown by the dissection. I am at a loss to conjecture why

they should have made choice of the left side, unless from her representation that the first enlargement was discovered there, and, moreover, that the whole abdomen was now so uniform in its distention, that the larger tumour of the right side could not be distinguished. They procured, as stated above, two quarts. She was then advised to take the rubigo ferri, in combination with ginger, but could not continue its use. Shortly after her return, I was consulted, and on examining the abdomen, found an immense distention and evident fluctuation; and although there was but slight œdema, such was the enlargement, that it was with difficulty I could form an idea as to the situation of the tumour, which she described as having been distinctly felt, before the distention had become so great. I could, however, observe that the right side was more tense than the left, and that this hardness extended across the linea alba. Having the concurrence of Dr. Kollock, I punctured the linea alba, and felt myself somewhat disconcerted at finding such unusual resistance to the progress of the lancet. Apprehending that the tumour had extended across the linea alba, I freely introduced the whole blade of the instrument, which but slightly entered the cavity. I was enabled, by the use of the female catheter, to obtain about two gallons of serum. I could now plainly discover the size of the tumour, which became perfectly circumscribed, with its circumference (as nearly as I could judge) about that of a large plate. It evidently contained more fluid, and in a few days began to increase in size. Being now satisfied of the correctness of her statement, I looked upon it as a case of encysted dropsy of the ovarium, and confident that no advantage could be derived from the use of diuretics, and in order to remove the fever, I administered cathartics, and whenever the pulse would allow, tonics. The enlargement became so extensive in six weeks, that I was requested to operate again, and procured more than two gallons of serum, of the usual consistence. In three weeks, I made a third puncture, with the abscess lancet and large trocar, in the presence of Dr. Daniel. The secretion was

now altered from a thin serum to a ropy coagulable lymph, of the consistence of the white of an egg, two quarts of which was procured. I made a second puncture, and obtained twelve pounds of a dark, but much thinner gelatinous consistence. Subsequent to this last operation, she had much fever, accompanied, in a few days, with lancinating pain, rigors, low pulse, great debility, and night sweats, which led me to suspect the formation of matter. The tumour was now confined to the right side, much more circumscribed, and still extending towards the left; but not sufficiently in the linea alba to allow of my operating at that place. I now prevailed on my patient to submit to a fourth incision, giving her the assurance of my impression, that after the evacuation of the matter, adhesion would take place, and a further collection be prevented. The operation was made about four inches, in an oblique line, from the umbilicus, where the tumour presented most, and I opened the cyst which contained the matter. It flowed very freely, and I drew away two pounds of straw-coloured pus. The orifice in the tumour receded so much, that I punctured that part which presented itself to the opening in the integuments, and obtained sixteen pounds of the same ropy, coagulable lymph, of a darker colour, the fourth part of which, I feel convinced, was pus. I must here observe, that the discharge of urine, after the preceding operations, had never increased very sensibly until after the evacuation of pus. At this time she passed considerable quantities through the night, amounting to two or three pints. The increase continued for a few days. At this time she complained of a most insupportable burning in the soles of her feet, accompanied with a great numbness of the limbs, which appeared to have lost not only much of their power, but also of their feeling. The catamenia still continue uninterrupted, and have even become more frequent, occurring every fortnight. The tumour continued to enlarge, and exacerbations of fever at night, attended with great heat in the back and loins, denoting a fresh accumulation of matter, now supervened.

Nov. 17*th*, 1822. Opened the tumour to-day in the presence of Drs. Kollock and Marshal. As the orifice made at the last operation had never closed, and continued to discharge matter occasionally; with the concurrence of these gentlemen, I freely introduced the lancet into it, and so rapid was the discharge through the canula, that, apprehensive lest it might induce fainting, I arrested it for a short time. The discharge consisted of very fetid pus, of which I procured sixteen pounds. The operation was performed in a recumbent position, the patient lying on her right side. Although her strength was not materially affected, we thought it not advisable to proceed any further, although it was evident to us that much more fluid remained. I now introduced a tent four inches into the tumour; and left my patient much more comfortable than usual.

18*th*, 9 *o'clock* A. M. Rested better, passed a quart of urine during the night. Withdrew the tent; one pound of pus; complains of some pain in the tumour; not so much heat in the back and loins. Advised sponging with æther.

9 *o'clock* P. M. Removed the tent; 12 oz. pus; heat diminished; more appetite; allowed the use of brandy and water.

19*th*, 9 A. M. Heat more troublesome last night; less pain; 8 oz. pus; pulse feeble; passed a quart of urine through the night. Countenance improved; entertains strong hopes of recovery.

9 P. M. Much as yesterday; 8 oz. pus.

20*th*, 9 A. M. 8 oz. pus; less pain. Prescribed pills of the Carbonas ferri, six grains every two hours.

9 P. M. 12 oz. pus; some nausea. Mint tea.

21*st*. Tumour diminished in size; passed three pints of urine through the night. Advised porter. 12 oz. pus.

22*d*. Slept well. 22 oz. pus.

23*d*. 32 oz. pus; irritable stomach.

25*th*. 26 oz. pus; as the abdomen continues to enlarge, with fluctuation, it is evident that there is a further collection in a cyst which has not sufficient communication to dis-

charge itself by the orifice. She now requested that this part should also be punctured. I proceeded to perform the operation, and opened the left portion of this immense tumour, and drew away five quarts of serum.

26*th*. Rested better last night; stomach not so irritable; advised porter, withdrew the tents; 24 oz. pus. As the tumour had receded so much as to render it impossible to introduce the last tent, and was very painful, I closed the orifice in the integuments, intending to puncture it again should any fresh accumulation take place.

27*th*. Tumour continues painful; complains of much debility; distressing heat along the spine and loins; stomach not so irritable; continues porter, the only thing she can take. 12 oz. pus.

9 P. M. Had an ague of three hours continuance, followed by intense heat. MM. wet cloths to be applied to the back and loins. 12 oz. pus.

28*th*, 9 A. M. 12 oz. pus; takes port wine.

9 P. M. Irritability increases. MM. Tinct. opii. camp. 12 oz. pus.

29*th*, 18 oz. pus; stomach not so irritable; passes urine freely. MM. Tinct. opii. camp.

30*th*. 20 oz. pus. Heat very distressing; not so much irritability; urine is now discharged in very small quantities; and a further collection is taking place in the same cyst I last opened.

Dec. 1st, 18 oz. pus.
2d, 12 oz.
3d, 20 oz.
4th, 12 oz.
5th, 16 oz.
6th, 20 oz.
7th, 16 oz.; high fever attended with rigors.
8th, 24 oz. pus.
9th, 16 oz.
10th, 16 oz.
11th, 20 oz.
12th, 24 oz.
14th, 22 oz.

15th, 16 oz.
17th, 12 oz.
18th, 20 oz.

The tumour has diminished two-thirds; cold extremities

19th, 16 oz.
20th, 12 oz.
21st, 24 oz.
22d, 10 oz.
23d, 24 oz.
24th, 16 oz.
25th, 17 oz.
26th, much worse.

As the pus is now constantly discharged from the orifice, I withdrew the tent with an anxious hope that death would soon relieve her sufferings.

Dissection. The abdominal cavity presented a very singular appearance, when this immense tumour became exposed. It completely filled the cavity, and was so full of pus that the intestines were entirely hidden by it. The uterus was no ways enlarged; the left fallopian tube much enlarged, and the ovarium of that side had formed adhesions. This was also enlarged, and had the appearance of having been much diseased. The stomach highly inflamed; the kidneys but slightly so. The bladder enlarged but not inflamed. The tumour proceeded from an enlargement of the right ovarium, the greatest circumference of which was about thirty inches; when laid open it discharged six pounds of fetid pus. It was encysted and cellular, containing hydatids, some of which were as large as a goose egg. Extensive adhesions had formed about the incisions made at the different operations.

[We have been induced to select the following articles, for the present number of this Journal, from a firm belief that they will be both interesting and instructive to our readers. The third volume of the DUBLIN HOSPITAL REPORTS, from which they are extracted, contains, in addition to them, many articles of great value, and well calculated to sustain the reputation which the work has already so justly acquired by the preceding volumes. We shall therefore in our next number offer a review of its contents.—ED.]

ART. V. *On the Application of Leeches to Internal Surfaces.* By PHILIP CRAMPTON, M.D. F.R.S. &c. &c.

WHATEVER opinion may be entertained with respect to the proximate cause of inflammation, it seems to be generally admitted that local blood-letting and counter-irritants are among the most effectual means which art supplies for the relief of local inflammation.

The very terms "*local* blood-letting," and "*counter*-irritants," would seem to imply that it is the intention that the blood should be drawn from the part, or (to speak with more pathological correctness) *directly* from the tissue, which is the seat of the inflammation, and that the irritation should be excited in a tissue, both different and remote from that which is the seat of the morbid action.

I am not, however, acquainted with any instance in which this principle is rigorously acted upon. The application of leeches to the skin of the eyelids, and of blisters to the temples, for the relief of inflammation of the conjunctiva, is plainly a violation of it, both with respect to the bleeding and the blistering; since the blood is not drawn *directly* from the tissue, which is the seat of the inflammation, and the blister is applied so near to it that the irritation which it excites not unfrequently extends to the diseased part, where it acts as a *direct*, instead of a *counter* irritant.

Having in many instances observed how little impression is made upon the inflamed and turgid vessels of the conjunctiva, by the application of leeches, even in very great

numbers, to the eyelids or temples, and that when applied to the eyelids in particular they frequently excited a very troublesome erysipelatous affection, I was led to try the effect of applying a single leech to the inflamed conjunctiva itself, where it covers the lower eyelid. The result exceeded my most sanguine expectation, as a chronic inflammation of the eye, which had subsisted for many weeks, was immediately relieved, and by a second application was, in two or three days, completely removed. The successful issue of this experiment led me gradually to extend the practice to every case of inflammation of the conjunctiva; and I can now with confidence recommend this practice as affording the most powerful means of which we are possessed of subduing inflammation of the eye, whether chronic or acute, and whether affecting the conjunctiva or the more interior parts of the organ. I could, if it were necessary, substantiate this statement by numerous cases. I trust, however, that it will be sufficient to state, that the practice is now very generally adopted in this city, and that the several highly respectable apothecaries, who are in the habit of applying leeches by my direction to the conjunctiva, can bear testimony to the superior advantages which this practice possesses over the ordinary mode of applying them in inflammation of the eyes. I am induced to add the subjoined abstract account of the ophthalmic cases received into the Royal Military Infirmary during the last seven years, as it comes strictly within the scope of an "hospital report," and affords perhaps the best testimony that can be adduced of the safety and efficacy of the practice which I have ventured to recommend.

Abstract account of the number of opthalmic patients received into the Royal Military Infirmary, Phœnix Park, Dublin, with the manner in which they have been disposed of from the period commencing the 1*st of May* 1814, *and ending the* 1*st of May* 1821.

Admitted during the above period . . .	2074

Blind when admitted, but accommodated in the hospital until examined by the Board at Kilmainham	5	
Passed for pension, in consequence of lost or impaired vision	9	
Sent cured to their repective regiments	2060	
		2074

(Signed) Wm. Newton, Steward.

In a large majority of these cases, (which included every kind and degree of inflammation of the eye) leeches were repeatedly applied to the conjunctiva, under the direction of that most zealous and efficient medical officer, Staff Surgeon Stringer; and I can distinctly state, that not only in no instance was the practice attended with any inconvenience, but that, in by far the greater number of cases, the application of one, or at the utmost two leeches to the conjunctiva, had a more decisive effect in unloading the inflamed and turgid vessels of that membrane, than the application of five times that number to the temple and eyelids.

It is scarcely necessary to observe, that the application of leeches to the conjunctiva should never be considered as superseding the use of the other active measures which are so essential towards reducing acute inflammation of the eye.

In an economical point of view the advantages of this practice must be apparent, for in public, and too often in private practice, the high price of leeches presents an insuperable obstacle to their sufficient employment.

With respect to the manner of applying leeches to the conjunctiva, nothing can be more simple. The patient should be placed with his back to the light, in order that the lower eyelid may be everted without exciting pain; a leech or two, rather below than above the middle size, should be allowed to fix upon that part of the inflamed membrane, which covers the tarsus, taking care that it fastens neither upon the ciliary margin, nor upon the eye itself.*

* In several instances I have, (from inattention upon the part of the

The leech fixes and fills himself in this situation much more quickly than upon a cuticular surface, and this observation is equally true with respect to all internal surfaces, for which I have observed that leeches have the strongest appetency.*

Encouraged by the success attendant upon the application of leeches to the internal surface of the eyelid, I was led to extend the principle to a surface more difficult of access than the conjunctiva, and for the relief of a disease of a much more formidable character than ophthalmia.

All medical men must have observed with how little effect leeches and blisters are applied to the external fauces for the relief of the suppurating sore throat (cynanche tonsillaris). In fact, many of those who are subject to frequent attacks of this most painful and sometimes dangerous malady, having observed that all attempts to discuss the inflammation by means of local and general blood-letting, blisters and purgatives, are attended with no better effect than the prolonging of their sufferings, by postponing the process of suppuration, have left the disease to its course, and awaited, with whatever patience they might command, the natural issue of the disorder.

I was induced, a few years since, in the case of a young person in whom I took a very particular interest, to try what effect would be produced in this disease by applying leeches to the inflamed tonsils, at the commencement of the inflammation. The attempt was attended with fewer difficulties than I could have anticipated, and succeeded beyond my most sanguine expectation. A single thread

operator,) seen the leech fix upon the conjunctiva which covers the sclerotica, but this was attended with no other inconvenience than a temporary ecchymosis.

* In Egypt and in the Balearic islands those who drink of the stagnant waters are subject to great inconvenience and even danger, from a small leech, which, attaching itself to the internal fauces, continues to suck blood, until, from the size of a horse hair, it acquires the dimensions of a common leech. See Larrey, vol. i. p. 358.

of silk was passed *through* the body of the leech, at about its lower third, the ligature being made fast to the finger of the operator, the leech (held securely between the fore-finger and thumb) was introduced into the mouth, and its head, directed by a probe, was brought in contact with the inflamed tonsil. The animal fixed itself to the part in an instant, and, in less than five minutes, being gorged with blood, it fell upon the tongue, and was withdrawn. The relief was immediate. The tonsil continued to bleed for three or four hours. On the following day the inflammation had greatly abated, and in a few days the tumor had completely subsided without suppuration.

In the month of September, 1819, I was called to see Mr. L. who had been suffering for sixteen hours under an attack of cynanche tonsillaris, the second which he had experienced within the last month. The tonsils, naturally large, were now in contact, in consequence of the enlargement of the left one. The inflammation extended to the velum and uvula, the latter of which was œdematous: he complained much of his head and neck, and there was a considerable degree of symptomatic fever. Two leeches were directed to be applied to the inflamed tonsil and velum; an emetic to be taken after the leeches had fallen off; and in the evening a bolus with calomel and rhubarb. The leeches were applied by Mr. Moore of Anne-street, who reported to me that they had procured immediate relief. On the following day Mr. L. was able to leave his room, and in a few days the swelling of the tonsils had completely subsided without suppuration. I could report many similar cases, but I think it sufficient to state, in general, that in no instance in which leeches have been applied to the tonsils, within the first twelve hours of the attack of inflammation, has the disease proceeded to suppuration.

When scarlatina anginosa was epidemic in this city in the spring of 1820, I had many opportunities of witnessing the great relief which was obtained by the application of leeches to the tonsils, when the inflammation of the mucous

membrane ran high, and I can therefore state with confidence, that local blood-letting in *this way*, when early employed, affords one of the most powerful means of which we are possessed of relieving the most distressing symptoms of this dangerous disease.

In affections of the head connected with an undue determination of blood to the brain, or with the suppression of an habitual epistaxis, the greatest relief is frequently obtained by the application of leeches to the internal surface of the nostrils. This practice, which is so generally adopted on the continent, has not, I apprehend, in this country met with all the attention which it deserves.

Art. VI. *A case of Diseased Heart, with observations.* By Thomas Cuming, M. D. &c. &c.*

The subject of the following case was a man 38 years of age, by trade a glover. He was rather of a spare habit of body, somewhat below the middle size, and, when I first saw him, December 6, 1820, he appeared slightly emaciated by illness. He told me that about the latter end of September preceding he was seized one day, while walking along Lower Ormond-quay, with a severe pain in the middle of the sternum, attended with a still severer pain in the bend of the left arm. The sensation was so distressing that he was obliged to stop and go into a public house, where, after resting about twenty minutes, the symptoms gradually went off. In the public house he took a glass of spirits and water. While walking homewards he was seized again with a similar pain in the breast and arm; and although he felt as strong an inclination to stand still as in the first instance, he made an effort to overcome it, and by the time he reached his lodging the paroxysm had nearly subsided. About three days afterwards, when drinking punch with some friends, he had a recurrence of

* Dublin Hospital Reports. Vol. 3. p. 319.

the pain in the breast and arm. Upon going into the open air, however, the uneasiness was soon removed, and he passed the remainder of the evening without inconvenience.

In the course of two days after this last attack, he was awakened out of his sleep about 2 o'clock in the morning, by a recurrence of the pain in the breast and arm: the paroxysm in this instance was attended with a sense of tightness in the chest, severe dyspnœa, and violent pulsation of the heart and larger arteries, particularly the femoral, carotid, radial and temporal. After continuing about an hour the fit gradually went off; but at five o'clock he was seized again with a paroxysm which lasted about the same time, and was in every respect similar to that with which he was attacked at 2 o'clock. From this period until the time I saw him, he had generally about two paroxysms every morning, at 2 o'clock and at 5. They were attended with precisely the same symptoms, and generally lasted about an hour. During, and in the intervals of the paroxysms, he had constant pulsation of the heart and large arteries; and the pulsations were so strong as to be visible from a considerable distance. Upon applying my hand I felt a strong pulsation over the whole left side of the chest, which extended into the epigastric region, and from that downwards for some way below the umbilicus. The pulse at the wrist was regular, full, hard, and vibrating. For some days previous to my first visit he had observed slight œdema of his feet towards evening; and when I saw him his face, though by no means œdematous, appeared somewhat fuller than, from the corresponding appearance of the rest of his body, might have been expected. Urine rather scanty, and high coloured; appetite indifferent. Some degree of thirst; bowels liable to be confined. He could lie with more ease on the right side than on the left. He could not attribute his ailment to any particular cause, unless it might be to cold which he received by sitting exposed to the air from an open window. Since the

commencement of his illness he had been occasionally subject to flatulence, and the fit had sometimes terminated after the expulsion of wind from his stomach. He had been subject to occasional cough in winter for several years preceding this attack; and since the commencement of his illness the cough had been more than usually troublesome, and attended with considerable mucous expectoration. Though in general a man of temperate habits, he had occasionally indulged to excess in ardent spirits, and had frequently laboured under irregularity of bowels, being alternately affected with constipation and diarrhœa. I think it necessary to mention, that he had been in the habit of playing a good deal upon the flute, and sometimes of singing.

Before I saw him he had been bled twice, and blistered on the chest four times. He had taken purgative pills occasionally, and draughts composed of tinctures of digitalis and hyosciamus, laudanum, and antimonial wine. He thought the bleeding and blistering had relieved the cough, but he could not perceive that any impression had been made upon the paroxysms or pulsation. The diet on which he had principally lived since the commencement of his illness was coffee and tea, with toasted bread, to breakfast, and sometimes a little lean mutton or veal to dinner.

With a view to reduce the action of the heart and arteries, I directed him to confine himself as much as possible to vegetable food, to abstain entirely from the use of spirituous or fermented liquors, and to avoid, as well as he could, all causes of mental or bodily agitation. As the bowels were liable to be confined, I found it necessary to prescribe aperients repeatedly, and though no decided or permanent effect was made on any of the prominent symptoms, I always observed considerable diminution of uneasiness after free alvine evacuations.

Blisters to the chest afforded some relief to the cough, but notwithstanding their application, the use of digitalis in larger quantities, and the insertion of a seton in the side, I could not perceive any favourable change, either as

to the frequency of the paroxysms, or as to the constancy and violence of the pulsation. On the contrary, from the 7th to the 23d of December, he had seldom less than two, frequently three or four paroxysms throughout the night, and occasionally as many throughout the day.

The pain of the arm was at times so excruciating as nearly to induce delirium; and whenever this was the case I observed he had but little corresponding pain of the sternum. On some occasions he had slight pain of the arm without any pain of the sternum. During the paroxysms the face was generally pale, and the body bathed in perspiration. Frequent attempts to expel flatus from the stomach generally attended each paroxysm, and he always felt considerably relieved after its expulsion. Although the pulsation was always strong, and communicated a vibratory motion to the bed-clothes, it was more violent during the paroxysm. His sufferings during the paroxysm were not aggravated, as in the case of angina pectoris, when he walked about; and when seized with it at night he was always obliged to sit up immediately in bed.

On one or two occasions the pain of the arm was relieved by immersing it up to the middle in warm water, and by having it rubbed and grasped strongly. Friction to the chest generally afforded relief to the pain of the chest and arm. An opiate at bed-time, and an anodoyne antispasmodic mixture, had no effect whatever on the paroxysms; and the pain of the arm was in no wise relieved by rubbing it with ammoniated liniment.

On the 23d December the gums became a little sore from some calomel combined with ipecacuanha, which he commenced taking on the 19th. His urine had increased in consequence, and the œdema, which had been considerable, was less. The paroxysms however continued as before. From the 23d of December till the 1st of January the paroxysms were less frequent and severe. The sense of pulsation was continually less distressing, and at times he felt almost entirely free from it. He thought himself

much better, and was sanguine in his expectations of recovery. The cough, however, was still very distressing.

On the evening of the 1st of January he was seized with a violent fit of coughing, which continued without intermission till 2 o'clock of the following morning, and obliged him to sit up in bed. From this hour till 7, he laboured under incessant dyspnœa, with gasping for breath, and the cough was very distressing, though not so frequent as in the fore part of the night. In several nights after this attack he was obliged to sit in a chair, propped up by pillows, from a sense of impending suffocation whenever he attempted to lie in the horizontal position.

From the commencement of the asthmatic attack the nightly paroxysms had occurred but seldom, and were very slight. He suffered much, however, from dry cough; the quantity of urine was diminishing, and the œdema of feet increasing. On the 3d January a grain of squills, with half a grain of digitalis, and about three grains of extractum cicutæ was directed to be taken three times a day. On the 10th the gums were a little sore, and he was able to lie at intervals on his side. Urine increased; œdema less; pulsation not so distressing, and less visible. From 12th to 19th no return of the paroxysms or asthmatic attack. On the 23d he had a recurrence of the paroxysms, attended with dyspnœa, and a sense of tightness and oppression in the chest. From this date until the 7th of February the symptoms were increasing in severity. The abstraction of 10 oz. of blood failed to procure the slightest alleviation of his sufferings. On the evening of the 11th he was seized with an excruciating pain of the epigastrium, fluttering about the heart, severe cough and difficulty of breathing, which obliged him to sit, for the most part, in the erect position. On the 12th I found him sitting up in bed, his countenance pale and anxious, and bearing all the appearance of great exhaustion. He was aware of his danger, and expressed a fear that he should not be able to sur-

vive such another night. His fear was but too well founded, as he died at 4 o'clock on the morning of the 13th.

In some hours previous to death he had constant retching, attended with the expectoration of dark blackish-coloured sputa.

The body was opened by my friend Dr. Charles Johnson, in presence of Dr. Mills, Dr. Mollan, Mr. Abell, and myself. The following account of the appearances on dissection was drawn up at my request by Dr. Johnson, who, as well as Drs. Mollan and O'Reirdon, had occasionally seen the patient with me during his illness.

External appearances.—There was neither lividity nor œdema of the face, hands, or feet, but the body shewed a tendency to run rapidly into putrefaction.

Thorax.—The right side of the chest contained from 6 to 8 oz. of fluid. The right lung was adherent to the parietes at the lower and back part by strong membranous bands. These adhesions, it was, however, evident, were not of recent formation. The lung itself was thickened, and its texture more than usually solid. When cut into, a frothy mucus flowed out. The left side of the chest was apparently healthy. The pericardium was considerably enlarged, and contained about four ounces of fluid. It was not thicker than natural; but on the external surface its vascularity was increased, more particularly towards the left side. The heart was fully double its natural size. The external surface of the left ventricle was highly vascular, and towards the base of the heart presented a granulated appearance. This appearance did not extend to the right ventricle. The coronary arteries were larger in proportion to the size of the heart, but in every respect healthy. The right cavities were increased in size, but otherwise their appearance was natural. The great increase of size was in the left ventricle, whose cavity was so much enlarged, as to admit of the hand being turned round in it with facility. The parietes of the left ventricle were thinner than natural, and the musculi pectinati more projecting.

The tricuspid and mitral valves were perfectly healthy, as were also the semilunar valves of the pulmonary artery. The valves of the aorta presented a shrivelled appearance; their margins were irregular, thickened, and of a cartilaginous consistence. When stretched to the uttermost, they did not reach within the tenth of an inch of the openings of the coronary artery. The aorta, throughout its entire course, was perfectly healthy, with the exception of a small opaque spot near the heart, which in reality could not be called a morbid appearance.

Abdomen.—The stomach was considerably distended, and externally presented a mottled appearance, which was most remakable at the great extremity. The mucous membrane was soft, thickened, and covered with a viscid mucus. A few spots like petechiæ were observable at the bulging extremity. The entire of the intestines was distended with flatus. The small intestines were very vascular externally. The liver was apparently healthy, but appeared, in common with the other viscera, to contain more blood than usual. The left kidney was enlarged; its structure friable, breaking down under the finger. The right kidney healthy; the spleen presented its usual appearance.

In this case many of the symptoms were so well marked and distinctive, as to enable me, as I thought, to pronounce with certainty upon the nature of the disease. The violence of the heart's action, conjoined with the full, strong, vibrating, and even visible pulsation of the superficial arteries, left no doubt on my mind, nor on that of the gentlemen who had seen the patient along with me, that the proximate cause of the disease was an active enlargement of one or both ventricles of the heart. When the body was opened, therefore, I was not a little surprised to observe a condition of parts the very opposite of that which I had been most confident of finding. Had circumstances prevented the examination of the body, I should have

rested very contented with an opinion, which a little further investigation proved to be erroneous.

The disease of which this patient died was evidently passive aneurism* of the left ventricle, conjoined with dilatation of the cavities of the heart. The state of the aortic valves seems sufficient to account for the dilatation of the ventricle. From being shrivelled, thickened, and not extending within one-eighth of an inch of the openings of the coronary arteries, they were consequently, when applied to one another, incapable of closing up entirely the ventriculo-aortic aperture. During each diastole of the ventricle, therefore, a quantity of blood flowed back through this aperture from the artery, which meeting with the stream of blood flowing in at the same time from the auricle, occasioned a violent and supernatural effort in the ventricle to empty itself of its contents. This effort frequently repeated seems, in a certain degree, to have overcome the resistance, and occasioned a distention of the fibres of the ventricle, whence the dilatation of its cavity, and thinness of its parietes.

The dilatation of the right cavities of the heart is to be attributed to the obstructed circulation through the lungs, which was occasioned by the regurgitation of the blood from the aorta, preventing the blood of the pulmonary veins from flowing readily into the left side of the heart. Although the shrivelled and contracted state of the aortic valves prevented them from completely closing the ventriculo-aortic aperture, and they allowed a reflux of blood from the artery into the ventricle, there was no diminution of the aortic aperture itself, and therefore a full stream of blood was thrown into the artery at each stroke of the ventricle; whence arose the full, hard, and vibrating pulse, which, conjoined with the violence of the pulsation in the region of the heart, led me to suspect an active, rather than a passive enlargement of the ventricle. Had there been actual diminution of the aortic aperture, the smallness

* See Corvisart.

of the stream of blood, which would have passed from the ventricle into the artery, must have given rise to a small, feeble, and thready pulse, which, inasmuch as diminution of this aperture is the most frequent cause of dilatation of the ventricle, is the kind of pulse most generally met with.

The parietes of the left ventricle, though thinner than natural, were not so much attenuated as to be incapacitated from acting with considerable energy upon the blood. The degree of impulse communicated to the blood was not only evident from the force of the pulsation, but from the high state of capillary vascularity presented by the pericardium, left side of the heart, liver, and intestines. Had the disease continued much longer it is probable the walls of the ventricle would have continued diminishing in thickness, and the pulsation of the heart must have become proportionably less violent.

The epigastric pulsation seems to have been more owing to the impulse communicated by the heart to the diaphragm, and from thence to the abdominal muscles, than to pulsation of the abdominal aorta.

The frequent attacks of pain in the heart and arm constituted a most remarkable peculiarity in the preceding case. The paroxysms were probably spasmodic, and the exciting cause seems to have been the diseased state of the heart. We know that a diseased condition of the organs, the liver, spleen, stomach, uterus, &c. is a frequent cause of spasmodic or nervous symptoms.

These paroxysms generally came on during sleep. Of the state of the nervous system during sleep we are ignorant, but we know from experience that it has a powerful influence in disposing the body to be affected with nervous disorders. It is a matter of observation that the whole train of nervous disorders, asthma, epilepsy, incubus, &c. are particularly prone to make their attack during sleep.*

* For these and some of the following observations I am indebted to an excellent paper on Angina Pectoris of my friend Dr. Black of Newry. Vide Black's Clinical and Pathological Reports, p. 29, 30.

I am not aware that in any case of diseased heart, uncombined with ossification of the coronary arteries, paroxysms of such severity, or of such regular periodical recurrence have been observed as in the case which I have just related.

The uneasiness which the patient felt when he lay on his left side seems to have proceeded from the diseased state of the heart. The cavity of the thorax, in which the heart is chiefly situated, is naturally smaller than the right. When the patient lay on the left side the left cavity would be diminished, partly by the external pressure arising from the weight of the body itself, and partly by the incumbency of the right lung on the mediastinum. Hence arose the uneasiness inducing a change of posture. When the patient turned to the right side, the left was freed from external pressure, and the heart, pericardium, and great vessels had a tendency, by their own weight, to occupy a portion of the right cavity of the thorax, and thus to produce an amplification of the left, whereby their motion was rendered more free and undisturbed. The fluid contained in the right cavity of the thorax, by pressing on the lung when the patient lay on the left side, may have contributed to increase the uneasiness.

The effusion of serum in the right cavity of the thorax, the adhesions between the pleuræ, the solidification of a portion of the lung itself may account, to a certain degree, for the cough under which the patient laboured for a considerable time previous to the commencement of his illness.

The asthmatic attacks under which the patient laboured towards the close of the disease, were probably to be attributed to a temporary obstruction to the circulation through the lungs, in consequence of the left side of the heart being unable to empty itself of its contents. The presence of flatus in the stomach might tend, not only to increase the severity of the asthmatic attacks, when present, but contribute much to bring them on. It is remarkable that the paroxysms of pain in the breast and arm were always

relieved after the expulsion of wind from the stomach. Of the influence of eructations in mitigating pain of the thorax, produced by malorganization of the heart and large vessels, particular notice has been taken by Morgagni and Dr. Parry.*

What was the immediate cause of death in the preceding case, as there was neither rupture of the heart, nor any of its vessels, it is difficult to say. An intense degree of asthma, obstructing altogether the pulmonary circulation, was probably the cause of dissolution. It is hard to say in what the disease originated. The patient could not attribute it to any particular cause; but I think it not improbable, that the previous pulmonic disease, combined with the habit he was in of playing on the flute and singing, had contributed to its production.

ART. VII. *An account of Two Cases in which Bronchotomy was performed.* By RICHARD BURGESS, M. D. Licentiate of the Royal College of Surgeons in Ireland. (Communicated to the Editors by Mr. Kirby.)†

THERE are few accidents more alarming, or the consequences of which are more uniformly fatal than the scalding of the mouth and throat, which takes place during an attempt to swallow hot liquids.

This accident most frequently occurs to children who are tempted to drink from the pipe of a kettle containing boiling water. Having seen five such instances within these few years, I should suppose they are by no means uncommon. The following cases were treated by myself,

* Vide Morgagni De Sed. et Caus. Ep. xvii. 16, xviii. 17, xxvi. 11. Parry on Angina Pectoris. Morgagni, Ep. of the frequent occurrence of ossification of the aorta and valves of the heart in players on wind instruments. De Sed. et. Caus. Ep. xviii. 24.

† Dublin Hospital Reports, vol. 3, p. 379.

and an account of them is now published with a view of encouraging early Bronchotomy under similar circumstances: the experience I have had leaves no doubt upon my mind, that death is produced in almost every fatal case by obstructed respiration, and very rarely by the ordinary local effects, which an injury of the kind is likely to give rise to.

CASE I.

Anne Holmes, aged three years, drank boiling water from the pipe of a tea-kettle, by which the mouth, tongue and fauces were severely scalded. Great swelling of the parts immediately ensued, which not only prevented deglutition, but impeded respiration very considerably. In about two hours after the accident I saw her. On looking into the mouth, it appeared as if a large piece of raw flesh had been forced into the fauces, and had completely filled up the passage. Respiration was performed with very great difficulty, and was momentarily becoming more laborious, —in fact the child soon appeared to be dying; I therefore recommended that Bronchotomy should be resorted to without delay, as affording the only chance of relief, and to this the parents of the child consented.

The operation was performed with some difficulty, in consequence of the fatness of the patient; however, the second ring of the trachea was divided, and on the air rushing in the child immediately revived, sat up in her mother's lap, and pointed anxiously to some drink, with which she was indulged, but she was unable to swallow. There was no hemorrhage from the incision; the orifice, however, soon became obstructed with viscid mucus, which required to be regularly removed, as all the alarming appearances of suffocation returned. I introduced a tube into the trachea, but the irritation it produced was so great as to render its retention there impracticable. I accordingly gave directions to the attendants to keep the opening in the windpipe covered with a bit of fine gauze, and to clear it of mucus whenever respiration was impeded. The usual

treatment for inflammation was pursued, and the child's strength subsequently supported with nutritious enemata. About the eighth day I was enabled to introduce a little whey into the stomach by means of an elastic tube passed through the nares, but respiration was still difficult. On the 10th day I applied my finger to the opening into the trachea, and found that the child could breathe through the natural passages. On the 12th day she could swallow fluids, and at the end of three weeks the deglutition of solids could be performed, the wound was healed, and natural respiration completely restored.

CASE II.

In November, 1818, I was called to a child, aged 18 months, who had met with an accident similar to the foregoing. I saw her about eight hours after she had taken a scalding fluid; she appeared lifeless; I opened the windpipe, and the child instantly revived. She died, however, in about twelve hours after the operation, evidently in consequence of her attendants neglecting to keep the wound free, by regularly removing the mucus which collected within it.

Clonmel, December 1, 1821.

ART. VIII. *A case of Hydrocele, assuming unfavourable appearances, successfully treated.* By Dr. GEORGE R. PITTS, of Westmoreland county, Virginia.

IN presenting the subjoined case of hydrocele as it came under my immediate observation and treatment, it is far from my design to enter into a pathological consideration of this disease, which has already been ably delineated by the masterly pens of Pott, Sir James Earle and Astley Cooper. It will suffice for me to say, that I believe a majority of hydroceles owe their origin to an unhealthy condition of some of the abdominal viscera, and more especially to chronic splenitis and hepatitis. I was applied to on the 27th of

September, to visit Mr. K. whose situation was represented as hazardous, in consequence of considerable swelling of the testes, terminating, as it was supposed, in mortification. My professional avocations were such, at the time, as to prevent my seeing him earlier than the next day in the afternoon. I however informed the applicant that I presumed the swelling arose from a collection of water in the cavity of the scrotum, and that the safety of the patient depended upon its immediate evacuation. I also directed that the scrotum should be enveloped in a poultice of Indian meal and powdered charcoal.

Sept. 28*th.* On my arrival in the afternoon, I was astonished to find my patient cheerful and in possession of such uncommon fortitude. He informed me that he had suffered more than death itself, but that he had felt much easier since a copious bleeding from his nose, which had taken place the preceding night. He observed that he did not despair of getting well, notwithstanding the opinion of two physicians to the contrary; by whom he had been visited in the forenoon, and who had ventured nothing for his relief but a dose of calomel, which had not operated. On examination I discovered the scrotum considerably distended, pitting on the application of my finger, and exhibiting throughout a livid and gangrenous appearance. Making further inquiries in relation to his situation, he informed me that for the last two or three months, he had suffered some uneasiness in his left side, that his spleen was hard and greatly enlarged,—that for the last fortnight he had voided but little urine, and that the day preceding his confinement, he had laboured unusually hard at his trade, which was that of a blacksmith.

The disease being clearly marked, I immediately, with a common thumb lancet, made two punctures in the most dependent part of the swelling; one on each side of the septum or raphe, which separates the testes. In consequence of the scrotum having remained for some time in a state of distention, and being already in a gangrenous condition, the discharge of the water was very slow; and without waiting for its

entire evacuation, I directed that the scrotum should be covered entirely with a poultice of Indian meal, mixed up with strong decoction of red-oak bark (quercus rober), and that it should be supported by an appropriate bag. His bowels were in a healthy condition and his pulse soft and regular; the inflammatory symptoms having yielded, I presume, to the copious hemorrhage from his nose. Believing the morbid condition of the spleen to be the leading cause of the hydrocele, I determined to commence the mercurial course as soon as practicable, and directed with this view, seven grains of nitras potassæ, with one of sub murias hydrargyri in powder; one to be taken every third hour till ptyalism commenced; premising one ounce of sal epsom with one drachm of nitri dulcis, for the purpose of promoting the operation of the calomel (already taken) and to operate at the same time as a hydragogue cathartic. For the purpose of restoring the determination to the kidneys, I directed two drachms of acetite of potash* with one of spirits of nitre to be taken each night and morning in asparagus tea, and that the latter should be used for constant drink.

30*th*. The water entirely evacuated; the scrotum flaccid and exhibiting the same gangrenous condition, which however has not progressed; has voided urine freely; has no appetite; disturbed sleep. Continue the same prescription, except the addition of the compound powder of ipecacuanha at bed-time.

Oct. 1*st*. The mercurial action confirmed; appetite and sleep better; a slight enlargement of the inguinal glands on the right side, accompanied with pain and inflammation. Directed a wash of acetite of lead and laudanum three times a day; the mercurial powders to be discontinued.

2*d*. Mortification confirmed by both the fetor and sloughing, which has commenced in the most elevated point of the scrotum, on each side. Directed one drachm of Pe-

* Prepared by decomposing the common salt of tartar, or carbonat of potash with vinegar. I have always found it an excellent diuretic.

ruvian bark, with ten drops vitriolic elixir, every fourth hour. The swelling of the inguinal glands diminished; ptyalism profuse; appetite and sleep, as in health.

3*d*. The whole body of the scrotum, with the intervening cellular texture, almost entirely detached, and readily removed by a pair of forceps. The testes exhibit a healthy appearance. Directed that they should be fomented with milk and water three times a day, and enveloped, after each fomentation, in a liniment of mutton suet. The bark and vitriol to be continued.

14*th*. Granulations of a deep red, are rising over different parts of the testes. Appetite voracious. Directed a less quantity of bark and vitriol.

19*th*. Granulations and cicatrization progressing rapidly. Local applications and internal medicines to be discontinued. The testes to be supported in a bag of velvet, or buckskin.

Nov. 30*th*. The testes covered with an entire new scrotum; the patient labouring at his trade, and says he is in possession of much better health than he has enjoyed for several years. I omitted to mention, that the enlargement of the spleen disappeared upon the termination of the ptyalism, and that when sloughing commenced, I changed the poultice to one of Indian meal and powered charcoal.

The favourable termination of this case, co-operating with many others which have come under my observation, have impressed upon my mind, an unequivocal belief in the resources of the vis medicatrix naturæ, in both warding off, and expelling from the constitution, the morbid poison of disease. That the inflammation of the scrotum was subdued, and the concomitant mortification arrested, by the copious hemorrhage from the nose, is, to my mind, a fact too plain to admit of either doubt or disputation. The circumstances, however, justified the antiseptic application, and I am not prepared to say positively, that it did not co-operate with the salutary intervention of the vis medicatrix. Melancholy to relate, at one period of the medical art, it

was a custom with physicians to go in direct opposition to the calls and requisitions of nature. In inflammatory and bilious fever, while the unfortunate victims were literally suffocating, I may say, for the want of cool air and cool drinks, heating and inflammatory potions were administered with an unsparing hand. At that unenlightened period, to have permitted a patient with bilious fever, to drink freely of cold water, and to have his body sprinkled with the same, would have been considered a positive assault upon life itself. We have only to refer to the records of our science, to behold the fatal consequences which resulted from this strange perversion of nature. The illustrious Dr. Rush (whose memory will be revered as long as medicine is cultivated as a science) frequently took occasion, in his lectures, to observe, that the operations of nature were futile and precarious,—should never be trusted, and that a physician, in order to do justice to his patient, should remove him entirely from her hands. I admit, with Dr. Rush, that in many, yes, in very many cases, her operations are not only precarious but nugatory, and that the assistance, and even interference of art are often required. But I am very unwilling to admit, that the operations of nature are to be entirely disregarded, and should be considered rather an enemy than a helpmate in the control of disease; and so long as I continue to practise medicine, I shall hold myself bound to view all her operations with a constant and vigilant eye. When they are too strong, I will endeavour to quell; and to give them aid, when I find them weak and inefficient. I will conclude these hasty and imperfect sketches, by observing, how highly improper it is, for physicians to abandon their patients, even under an accumulation of symptoms, however appalling and deathlike. They should recollect, that "the contract between the patient and the physician is that of life and death," and that, as long as there is life, there is hope; that no train of symptoms, however alarming; no prognosis, however unfavourable, can point out certainly, where life will end and death ensue; and that a combina-

tion of symptoms, however dreadful; of pain, however pungent, should never deter the physician from exercising all his ingenuity and acquirements, in order to soften the pillow and mitigate the agony of disease.

ART. IX. *Case of Removal of a portion of the lower Maxillary Bone.* Communicated, in a letter to the editor, by W. H. DEADERICK, M. D. of Rogersville, Tennessee.

HAVING lately been informed by a medical friend, that a surgeon of New-York had, not long since, performed the operation of removing a portion of the inferior maxillary bone, which he supposed to be the first of the kind; I have concluded that an account of a similar case might not be unacceptable to the readers of your journal.

On the 6th of February, 1810, Jesse Lay, a lad of fourteen years of age, was brought to me by his mother, on account of a large excrescence which appeared to originate from the inferior maxillary bone, on the left side. The history of the case, as given to me, was as follows: About two years before, a tumour of the size of a pea was discovered arising from the gums, and proceeded, as the mother supposed, from a carious tooth. It gradually increased, and at this time had arrived to such a size, as almost entirely to envelop the left portion of the above named bone. Internally, it occupied nearly the whole of the mouth, and for the last three weeks great difficulty was experienced in swallowing, and occasionally danger of suffocation during sleep. Externally, the tumour had the appearance of a wen of considerable size. On the top of the excrescence, and along its whole length, a shallow groove extended, in which could be discovered, indentations corresponding with the alveoli. Neither the old woman nor her child could give any account of the disappearance of the teeth. I presume the pressure of the tumour occasioned their absorption.

The boy was of a sickly aspect, and though fourteen years old, was not larger than boys usually are, at eleven or twelve. It was evident, at first sight, that the patient could not exist very long, without a removal of the disease; and it was equally plain that nothing, excepting an excision of so much of the bone as was occupied by the tumour, could accomplish that object. The operation was accordingly proposed, and being agreed to, was done in the following manner:

An incision was commenced under the zygomatic process, and continued on the tumour, in the direction of the bone, to nearly an inch beyond the centre of the chin. A second incision was begun about midway, at right angles with the first, and extending a short distance down the neck. The integuments were now separated from their connection with the tumour, &c. and the bone was sawed off immediately at the angle and centre of the chin; I saw nothing of the parotid or sub-maxillary glands; they probably shared the fate of the teeth. The wound was united in the usual manner, and the boy had a speedy and happy recovery. The tumour was cartilaginous; and on being cut, exhibited a surface as white and smooth as polished ivory. The bone (the tumour having been separated by maceration) presented the appearance of a thin shell, wide in the middle, and tapering to a point near each end, where it was of the proper size and shape. Although thirteen years have elapsed since the operation, no connecting medium has arisen between the ends of the divided bone. The end, at the angle, appears to be covered by the usual integument, whilst the one next the chin remains naked and rough, though it has, notwithstanding, never exfoliated. The side of the face whence the bone was removed, is somewhat more flat, and the chin more peaked than natural. But the young man having successfully trained a pair of whiskers, the deformity is not very apparent, except on near inspection. Shortly after the operation, the patient recommenced growing, and is at this time an ordinary sized man.

ART. X. *A case of difficult Labour from a remarkable distortion of the Pelvis, and in which delivery was accomplished by means of the Crotchet.* Communicated by PEREGRINE WARFIELD, M. D. of George Town, D. C.

ON Wednesday morning, March 12th, 1823, I was requested by Mrs. F. to visit a negro woman at her house, who, from the account given, had been in labour from the previous Sunday evening. On my arrival, I was informed by the mother of Mrs. F. who had long practised as a midwife, that the membranes had been ruptured since Monday morning,—that it was the first occurrence of utero-gestation in the patient, who was thirty-two years old,—that she was deformed in her limbs, particularly in the inferior extremities, and that she was reared by her, and with difficulty taught to walk after many years assistance by artificial means. On examination of the legs and thighs, which from their extraordinary distortion, first attracted attention, they appeared to have suffered much from a rickety habit, and were so bent in various directions as to elevate the body when in health, in a shuffling crab-like locomotion, a few inches only from the ground. On examining the progress of the labour, the inferior part of the pelvis appeared of the usual dimensions, the os uteri in a state of constriction and rigidity so as barely to admit the end of the finger; the pulse tense, and bowels constipated. In this state of the case I directed eighteen ounces of blood to be drawn immediately, and one ounce of ol. ricin. administered. In the evening I was again called to the patient, who had been in convulsions. In consequence of this, I ordered twelve ounces more of blood to be taken, and finding no obstruction in the pelvis as far as the finger, which just touched the scalp of the fœtus, could reach, I became sanguine that the free operation of the cathartic, which had just commenced its action, would expedite delivery, and quietly awaited the issue.

From the action of the cathartic and venesection, the os uteri became gradually relaxed so as to admit three fingers; and although there was no pressure on it, still I remained assured, from the examination of the pelvis as far as the finger reached, that there was no obstacle to parturition, and that natural efforts would effect the object. Finding however that the propulsive efforts had become severe and unremitting, I resolved about 12 o'clock at night, to examine more thoroughly the situation of the fœtus. On introducing my hand, for, as before remarked the finger could detect no error, a gibbosity of the promontory of the sacrum producing an approximation to within an inch and a half of the symphisis pubis, with a portion of the vertex of the fœtus in the intermediate space, was distinctly felt. Believing the aperture smaller than it was subsequently discovered to be, I determined to make no efforts until the opinion of some professional associate was obtained, and although the result proves that this case was not altogether so hopeless a one as that mentioned by Mr. Bell, in which he says the brim of the pelvis was so sharp as to separate the vagina from the womb, thereby rendering delivery impossible, the child escaping among the intestines, and the woman died; yet, from the impression made on my mind, it was a case that seemed to offer little hope of success unless from an early resort to the cæsarian operation; for the apperture appeared too small to allow of the passage of even a moity of the fœtus. My respected friend Dr. Worthington, Senr., being sent for, arrived about day break; after deliberate examination, he concurred fully with me in opinion as to the cause of the obstruction to the delivery and extreme difficulty of the case, and suggested further consultation and assistance. Dr. Thomas, Senr., Dr. Henderson and Dr. Nicholas W. Worthington politely obeyed the invitation and met us at 12 o'clock. The patient had in the mean time suffered five or six convulsive fits with scarcely an intermission.

Her pulse was vaccillating and beating 160 to 165 in a minute, and her countenance a ghastly moribund. The

chances of saving the woman by any operation were deemed so precarious, and the hopes of her surviving to any so faint, that by the general consent of the physicians present all efforts were declined. In an hour, however, the convulsive agitations ceased; reaction taking place in the system, and something like parturient pains ensuing, we proceeded to open the cranium, and after some considerable delay, naturally encountered in such a state of things, Dr. W. succeeded in obtaining so firm a hold of the internal part of the fœtal occiput with the crotchet, then above the contracted part of the pelvis, as enabled the strongest of us, acting alternately, to bring down the shoulders through the obstruction. An end was now put to the torments of the patient, and her life thus rescued from the grave by professional exertions of three and a half hours duration. The fœtus was in a gangrenous state. The woman had been seventy-two hours in labour. After the operation, sanious matter, sufficiently offensive to necessitate the burning of tar in the house, continued to be discharged for several days, after which it gradually lessened; and at the present moment there is every prospect of her recovery. I cannot close this brief account without tendering my sincere thanks to my professional brethren, whose names I have already made known, for their useful advice and assistance, as well as for their active exertions in the cause of suffering humanity.

ART. XI. *An account of an Epidemic which prevailed in Franklin county, Pennsylvania, in* 1821. By N. B. LANE, M. D. of Chambersburg.

THE disease was more particularly observed near to Chambersburg, a town situated on elevated ground, at the confluence of the Falling Spring with East Conococheague creek. It is the capital of Franklin county, and lies between the North and South mountains. The country

surrounding it is fertile, well cultivated, and generally healthy.

During the last winter, the weather was extremely cold. The country was pretty free from disease, with the exception of some cases of inflammatory fever, and pneumonia typhoides. The spring was rather backward, being wet and cold, and the atmosphere foggy. Summer commenced as usual, with variable temperature; some days were excessively warm, others cool. There were no rains of any consequence until harvest, when they were slight, and continued only for a day or two; indeed, the drought was so great in the early part of this season, that vegetation suffered considerably. During all this time, the country was remarkably healthy, and continued so until the middle of July, when cases of dysentery, of a very obstinate character, occasionally occurred. This disease, however, soon disappeared, and gave place to the epidemic forming the subject of this essay.

This disease was distinguished by the following symptoms: dullness, languor, lassitude, pains in the bones, sickness of stomach, coldness, a creeping sensation along the back, and pain in the side; the tongue was natural; vomiting sometimes appeared in the first stage, and the bowels were costive; skin was dry, shrivelled, and cold. These symptoms were soon followed by the fever, during which the pulse was not very full, but quick and frequent; the skin very hot and dry, and the fever high, often continuing for twenty-four hours; the tongue was parched, and furred in the middle, and of a brown colour; the thirst was excessive, and drinks taken into the stomach, were frequently rejected; the bowels were torpid; the eye wild, and sometimes fixed and dull; the countenance gloomy and clouded; great debility and inclination to sleep prevailed, with the mind often disordered and delirious, and the respiration anxious and uneasy.

The third stage commenced, sometimes in twelve, and often not till twenty-four hours had elapsed. The perspi-

ration was sometimes free, at others cold and clammy; and in general, partial and imperfect. The patient often complained of illness for several days; but in many instances, was taken suddenly after slight exercise. They were attacked equally in the day and night. The disease assumed the intermittent, remittent, and continued type; it first appeared in the quotidian, tertian, quartan, and double tertian forms; and its type was sometimes characterized by coma and convulsions of an hysterical and epileptic character. It was, however, generally tertian in its type, and continued so; it sometimes varied, becoming quartan, quotidian, and very often remittent; the changes, at times, were sudden, but not unfrequently protracted and slow, before they exhibited the symptoms of the new type; the intermissions were rather feverish and short, consisting only of a few hours, during which medicine could be given. The paroxysm would often cease in the evening, and it was necessary to administer the medicine during the night, in order to obviate the attack of the succeeding day.

In the neighbourhood of Chambersburg, this epidemic first appeared in the latter part of July,—spread more extensively in August, gained its height in September, and finally terminated in November. It was general; whole families were confined at once. It did not, however, prove fatal; few deaths only occurring; and those taking place after the third paroxysm in the soporose form of the disease, or after relapses, which were frequent, occurring three or four times in the same person, and were sometimes produced by the slightest exposure. In other parts of the country, for instance, in the neighbourhood of Mercersburg, a small town, sixteen miles south-west of Chambersburg, the disease prevailed to a more alarming extent, as also in the neighbourhood of Green-Castle and Waynesburg, both small towns, situated in a southern direction; the former distant eleven, and the latter fifteen miles. From a very respectable practitioner of the former place, I understood that the disease first made

its appearance in his neighbourhood in harvest; and was likewise very destructive. Immediately in our borough, it was as healthy as usual; the only cases which occurred, were principally confined to its suburbs, and along the water courses. It is true, there were also cases at a distance from the water; but these, it is probable, originated from improper diet, as they were confined chiefly to the lower classes of society. There were few other cases. Those who were attacked in the town, had generally exposed themselves to the noxious districts, or to night air. I am not sufficiently acquainted with the character of this disease, as it appeared in our neighbouring villages, to give a detailed description of it; but I believe it was characterized by the preceding symptoms.

It is difficult to ascertain from what cause the fever took its origin; it appeared more frequently along water courses; in the open country and neighbourhood of ponds, more than in the towns. That marsh miasmata, or the effluvia arising from stagnant water or marshy ground, when acted upon by heat, will produce intermittents, is well known; but as I before remarked, we had very little wet weather; may we not then suppose it was owing to the drought, together with exposure to the cool evenings and mornings, being in some degree modified by the situations near water, ponds, or marshes.

In the first stage of the disease, the Dover's powder was found to produce speedy relief by inducing perspiration; but the practice which was most generally pursued, was the evacuation of the alimentary canal by emetics and cathartics, for which purpose the tartrite of antimony, and calomel and jalap were preferred. When an emetic and purgative were administered in the early stage, they were found often to subdue the disease. When prejudice prevented the use of emetics, the calomel and jalap were given in pretty large doses, which frequently had the desired effect.

It is worthy of remark, that the bowels were torpid, and scarcely to be moved by the largest doses: which was at first

ascribed to the inertness of the articles employed for that purpose. To an adult, we often gave from thirty-five to forty-five grains of jalap, and twelve of calomel, with two grains of ipecacuanha; and even when given in such doses, it became necessary to repeat them a second or third time before they operated.

In the second stage blood-letting, and afterwards emetics and cathartics were prescribed. To excite perspiration, nitrous powders were commonly resorted to; they had the effect of soon reducing arterial action, and preparing the system for the Peruvian bark. The latter medicine we gave, after the paroxysm, in combination with pulv. rad. zingib. or serpentaria Virginiana, and in doses of from two to four drachms every hour or two, according to the duration of the intermission. Although the fever was high, and the pulse tolerably full, the lancet was not often employed. By the symptoms, indeed, it seemed to be indicated; but it too often happened that the patient became prostrated after the loss of a small quantity of blood. Nothing appeared to have a more happy effect than emetics, and they were frequently repeated with most unequivocal advantage. I remarked, in the preceding part of this essay, that the bowels were extremely torpid; they did not, however, always continue so throughout the course of the disease; not unfrequently diarrhœa supervened, and astringents, in union with the bark, were found necessary. Cholera also occurred, and was sometimes peculiarly distressing; happily, however, it could be checked by the solution of salt of tartar, laudanum, and ess. peppermint, or soda powders. Arsenic and opium in the form of pills, in the dose of one-twelfth of a grain of the former, to one-third of a grain of the latter, were given every eight hours, during the intermission; but as these were sometimes very short, it was absolutely necessary to give the bark at the same time; a practice which proved very successful. It was observed by a very distinguished practitioner of this place, Dr. Culbertson, whose experience was extensive, that he had not derived the same advantage

from the use of arsenic this year as in former times. In the soporous stage, which was sometimes attended with low delirium, we found it necessary and useful to apply blisters to the wrists and nape of the neck, by which the mind became composed, and the system generally relieved. Some practitioners, in this place, bled freely at the onset of the disease; administered emetics, purges, diaphoretics, and mercury; cupped for affections of the head, and used the warm bath; but upon the whole, I do not believe that this treatment was more successful than the one I have already detailed. I have known ptyalism to be produced by the calomel given in conjunction with jalap, remaining too long in the alimentary canal; but I cannot say that it was conducive of any salutary effect. So far from entertaining this opinion, we invariably endeavoured to avoid ptyalism, as the mouth became so sore in consequence, that it was only by the greatest persuasion we could get our patients to take the necessary medicines. Children were principally attacked by the epileptic form, in which purging and the warm bath were valuable remedies. In the hysterical form, nothing was so evidently beneficial as emetics.

A frequent consequence of the disease, was an anasarcous swelling of the whole system; to remove which, diuretics and diaphoretics, particularly cremor tartar and nitrate of potash, were used. In consequence of the frequency and violence of the relapses, the greatest caution was observed in avoiding premature exposure; and during the convalescent state, we were in the habit of giving two or three drachms of the bark every four or six hours, for several days.

The preceding remarks apply only to the intermittent type. The remittent form, characterized by sighing, yawning, great anxiety, pains in the head and back, heat over the whole body, great thirst, difficulty of breathing, and depressed spirits; little alteration in the appearance of the tongue; nausea and vomiting; frequent, and full pulse, differed little in its treatment from the intermittent variety.

Emetics, cathartics, diaphoretics, and blisters, were employed; as soon as the disease intermitted, which was the great object of our practice, we administered the bark. The stomach was sometimes so irritable as not to retain any thing; and in these cases the disease proved mortal.

The continued type came on, with the usual symptoms attendant on this disease; it was less common than either of the preceding: comparatively speaking, it seldom occurred. Emetics and purgatives were the first means resorted to, and when the pulse was very quick, with some degree of fulness, so as to warrant the employment of the lancet, a small quantity of blood was drawn, which it was seldom necessary to repeat. Our next object was to determine to the surface, for which purpose Dover's powders, or the sudorifics already mentioned, were exhibited, and were generally effectual. Blisters to the wrists, and sinapisms to the feet, also became necessary, when the disease was protracted; afterwards bark was prescribed.

Epistaxis was frequent in this epidemic, and was not confined to any particular type; proving that the head was much affected. Astringent solutions, thrown up the nostrils, were used without benefit; and in consequence of previous debility of the system, venesection was considered hazardous; the application of a blister to the back part of the neck, generally relieved it.

By the heat of the weather, this epidemic was greatly increased. Some time in the month of October, it rained for several days, after which it became cool; during its continuance, but few cases occurred; warm weather succeeding, many people were attacked, and a great many relapsed.

As stated, such is the character and treatment of the epidemic as it fell under my observation; but before concluding, it may be as well to remark, that not since the year 1804, has a similar one appeared in this neighbourhood. At that time it prevailed, as I have been told by some medical gentlemen of this place, to a much more alarming degree.

ART. XII. *Case of Constipation, occasioned by a Stricture of the Colon at its Sigmoid Flexure, and terminating fatally.* By SAMUEL HENRY STERRY, Esq. Fellow of the Royal College of Surgeons.*

ON Monday afternoon, February 3, 1823, I was called upon by Mr. Joseph Barton, ætat. forty-four, who complained of occasional abdominal pain, chiefly confined to the umbilical region, which seemed to be of a colicky nature; and as the bowels had not been relieved more than once during the day, I ordered him a dose of calomel with extr. colocynth. that evening, and a draught for the morning, with sulphas magnesiæ and infusum sennæ: this had only produced one evacuation, and as he complained of a disposition to sickness, I thought it necessary to take some blood from the arm, and to order him another lenitive draught; this not producing more than a single motion, I repeated the aperient draught in the evening and morning. The pain still returned at intervals, without the appearance of any constitutional disease; but as he was of a plethoric habit, and as I had heretofore had occasion to treat him for severe pains in the head by general and topical bleeding, I advised him to abstain from business, to take mild nutritious diet, and to persevere through the week with the neutral salts in the infusion of senna, combined with the use of calomel or blue pill, with extractum colocynthidi compositum, at bed-time. On Saturday the 8th, he was at business. On the morning of Sunday he went to the Magdalen in a close carriage, walked home, and took some chicken for his dinner, from which he felt uneasy, but he did not send for me until Monday morning the 10th. At this time the bowels had not been relieved, and the uneasiness had increased; this was the first day the bowels had altogether ceased to act. I therefore ordered a

* London Med. Repository, May, 1823.

purgative mixture, which not producing the desired effect, and the uneasiness augmenting, Dr. Walshman was called in, who ordered him to lose fourteen oz. of blood from the arm, to use the warm bath, and to take a dose of pills every four hours, consisting of two grains of calomel, with five of extr. colocynth. co., and five of jalap; in the intermediate times a saline effervescing draught was administered; Dr. W. also recommended cathartic injections. Thus, in about twenty hours, he had taken fourteen grains of calomel, with ℈ij. of extr. colocynth. co., and two of jalap, combined with the use of constant fomentations and of several injections, but without producing any motion, if we except the evacuation of some scybalous matter from the inferior part of the rectum; the stomach, indeed, rejected every thing. He passed a very restless night, the pulse beating from 90 to 100. On the morning of the 11th, the pills and draughts were ordered to be repeated; these were constantly rejected; he was again bled, but there was not the smallest appearance of inflammatory buff on the blood. In the evening, Dr. Maton met Dr. Walshman, in consultation, and, after strict investigation, the disease was considered to be a case of intus-susceptio. It was agreed to try the ol. crotonis tiglii, one drop of which, in the form of pill, was directed to be given every four hours; the warm bath was also continued, which seemed to afford temporary ease; and the effervescing saline draught was persevered in; three pills were taken, but each returned at an interval of from one to two hours; no operation on the bowels had taken place, but a sense of heat was felt in the throat and stomach; consequently, no more pills were administered at that time. He passed a very restless night, the pulse continuing much in the same state. On the morning of the 12th, Dr. Walshman prescribed the following pills:

R. Cambog. gr. iv.
Pulv. Scammon., ℈j.
Pulv. Jalap., gr. xv.
Hydr. Submur., gr. vj.
Tinct. Aloes. q. s. M.
ft. pil. viij.; cap. iv. 4tâ quâque horâ.

These were also rejected, with every kind of mild drinks, although given in small quantities; injections with decoctum pulpæ colocynthidis et sennæ were also repeated several times without effect. In the evening, Dr. Maton advised a continuation of the pills, and also the administration of the oleum terebinthinæ, of which two ounces were given at twenty minutes past ten; part of this soon returned, and he was then quiet till about twelve. At half-past twelve, took an effervescing draught, and was restless till one, complaining of heat in the throat and stomach, from the oleum terebinthinæ: the abdominal uneasiness was rather lessened, and he remained tolerably quiet till twenty minutes past two; still, however, the vomiting continued, with frequent ineffectual efforts to relieve the bowels. I again tried to exhibit an injection, but there was such considerable resistance that only a small quantity passed, and the patient appeared distressed from the attempt. At ten minutes past six in the morning of the 13th, the dose of oleum terebinthinæ was repeated, which produced great uneasiness, with a violent convulsive state of the body; vomiting succeeded, and continued for some minutes; he likewise felt much heat in the throat, but without experiencing the same general warmth through the bowels of which he had made mention after the first dose. He again attempted, but ineffectually, to evacuate the bowels; from this time the vomiting ceased. In the afternoon, Sir Astley Cooper was consulted, whose opinion coincided with that before given by Drs. Maton and Walshman; he, however, suggested the propriety of again trying the croton oil, which, after the second dose, was attended with the same gastric uneasiness, without producing any effect on the bowels. In the evening, Dr. Maton again visited him, who, finding every effort unavailing, and considering it an almost hopeless case, advised us to try the hydrargyrum purificatum, in the dose of two ounces; this was three times repeated, but no portion passed the bowels; considerable tenderness had now taken place, with abdominal distention. On the 14th, Sir A. Cooper recom-

mended a blister and three grains of calomel every four hours; this dose was regularly repeated for two days. On the 17th, the oleum ricini was tried, a few doses of which appeared to sit easy on the stomach, but it was as ineffectual as all the other remedies. From this day to the 21st, common saline draughts, mild nutritious drinks, with wine and water occasionally, were all retained; in the afternoon of the latter day, much anxiety and uneasiness prevailing, one grain of opium, with three of calomel, was given every six hours, which allayed the irritation for a considerable time; and he continued much in the same state till Monday the 24th, when he became more uneasy from increased distention, accompanied with great thirst; the anxiety to allay which brought on vomiting, and he expired about ten in the evening, having lived three weeks from the time of requesting my advice, and two weeks from the commencement of urgent symptoms. Dr. Maton did not repeat his visits after the 13th. A considerable quantity of yeast was given after the failure of other medicines, which seemed grateful to him. The pulse, during the progress of the disease, varied from 100 to 130. The patient seemed to suffer more from extreme flatulency throughout his illness than from excessive pain, which latter symptom occurred only at intervals. Sir A. Cooper having considered it a case of intus-susceptio, advised the constitution to be moderately supported, under the idea that the invaginated portion of the intestine might slough, and thus a favourable termination be produced. It may, perhaps, be right to observe, that the vomiting, which was constant from Tuesday the 11th till the evening of Thursday the 13th, did not recur until within a few hours prior to his dissolution, and that the head was never affected during the illness. It was most distressing to observe a patient perfectly tranquil in mind, without the slightest prospect of overcoming the disease.

The body was opened by my son, in the presence of Sir A. Cooper, Mr. Callaway, and myself, when the following appearances presented themselves:—

On opening the abdomen, all the intestines, excepting the rectum, were found exceedingly distended with air, in so much that it was very difficult to cut through the peritoneum without doing injury to the intestines. Wherever the intestines were in contact with each other, red lines, from the adhesive inflammation, marked their disposition to unite. The derangement which produced death was situated at the upper part of the rectum; the sigmoid flexure immediately above it was much distended, and the cœcum enormously enlarged. At the termination of the sigmoid flexure of the colon, and at the beginning of the rectum, a stricture was found completely encircling and obstructing the intestine, which was very much ulcerated. This was the cause, and the *sole* cause, of the impediment to the passage of his motions, and of the fatal issue of the case.

The inner coat of the intestine was also thickened, and had a carcinomatous appearance.

No material quantity of the quicksilver was discovered, except in the small intestines, where a small portion was found adhering to the inner coat; the whole of the alimentary canal, however, was so loaded with a prodigious quantity of fermented matter, that it would have taken up more time than, under the particular circumstances of the case, was admissible, in order to arrive at any certain conclusion respecting the quantity of that substance actually contained in the different portions of the intestinal tube.

Grange Road, April 9th, 1823.

Art. XIII. *On Acupuncturation.* By James M. Churchill, Esq. Fellow of the Royal College of Surgeons.*

When I published my little treatise on acupuncturation, I expected to be questioned about it by individuals, who

* London Med. Repository, May, 1823.

were too polite to tell me that I had asserted what was not true; at the same time that their countenances clearly indicated the incredulity with which they viewed it. Still I persisted; and the value of the remedy has been most satisfactorily ascertained and confirmed in the practice of several individuals, who are willing that nothing shall be left untried which appears likely to relieve that painful disease for which it is more particularly recommended. I say, "*for which it is more particularly recommended*," because many valuable remedies are lost sight of, from being injudiciously employed by those who are too fond of *analogical deductions*.

Its success has now been so conspicuous, that I can assume an air of triumph, and dare any one to express his disbelief in what I have asserted respecting it. I am continually hearing of successful cases from respectable members of the profession; and expect soon to lay a body of evidence before the public, which shall dissipate the most obstinate scepticism. In the meantime, from my own practice, I select the subjoined cases for the perusal of your readers, that they may be induced to practise an operation that is so simple, so painless, and so convincingly efficacious; and it will afford me much satisfaction to receive succinct accounts of its effects from any gentleman who may feel inclined to employ it.

Case 1st.—George Jackson, a labouring gardener, about fifty years of age, became the subject of rheumatism three or four years ago, in consequence of exposure to wet and cold. The neck, shoulders, back, and hips, were occasionally the seat of the disease. Guaiacum and opium were usually had recourse to upon an attack taking place, and generally with decisive benefit. At the beginning of the year, however, his disease lost its erratic character, and fixed itself upon the deltoid and the greater pectoral muscles of the left side. The remedies accustomed to relieve him now failed of their former beneficial effect; and though cupping and blistering, with external irritants, were con-

joined, the disease remained unsubdued. I conceived that this was a fair case for acupuncture, and, accordingly, performed the operation in the following manner:—A needle was introduced about mid-way between the point of the shoulder and the insertion of the deltoid muscle, which pierced through the belly of this muscle until its whole length (one inch) had passed. The patient became sensible of relief before the needle had reached more than two-thirds its whole depth, and when it had completed its greatest depth, he observed that the pain of this part had entirely left him: it was allowed to remain five minutes, when, at his request, I withdrew it, and introduced it at the side of the chest, about three inches below the clavicle, intending to pierce the fibres of the pectoralis major. The pain of this part, which had now been much affected by the first operation, ceased as soon as the needle had rested two or three minutes; and after it had remained *five*, I withdrew it, leaving the patient entirely free from pain. Previously to the operation, he had been incapable of lifting the left arm, and had been obliged to feed himself with the right hand alone, from the inability of carrying his left to his mouth. He now reached his hat from a peg where it hung at the height of his arm's length, and replaced it on his head, without experiencing the least stiffness or uneasiness in the arm or shoulder; and though, upon resuming his occupation, he found his efforts impeded by a sensation of debility in the parts about the shoulder, yet it was neither sufficient to interrupt his daily exertions, nor to lead him to seek for any further medical assistance; and in a week or two he felt no remains of the disease.

Case 2d.—In February last, Thomas Field, ætat. forty-five, residing at No. 5, Richmond-street, came to me with such an intense pain in his back (induced by working in a damp cellar,) that he walked with great difficulty; he could not raise himself into the erect position, and one of his legs dragged after him, almost useless. He had been subject to lumbago several times before, and had been treated for it by

various medical men with the usual medicines; but his recovery had been, in every instance, slow and protracted. I introduced two needles, two inches in depth, into the muscles of the loins, which in some degree lessened the violence of the pain in a minute or two. Finding that the disease was not removed, but mitigated, I passed a *third* needle and a *fourth*, into the lumbar mass of muscles; and a few minutes having elapsed, I inquired how he was? he replied, that he "felt *no pain*." But he was sceptical as to its having *removed* the disorder; for his first attempt to move after the needles were withdrawn was made with the greatest caution; and when he found that he was really freed from the disease, he could not divest himself of the fear that it would immediately recur. I heard nothing of him for two days, when his daughter called on me, and informed me that her father was quite well, and had resumed his employment as a wine-merchant's cellar-man.

Case 3d.—William Webb, ætat. forty-eight, of No. 2, Richmond-street, applied to me for assistance for a violent pain in the lumbar region, with which he awoke at four o'clock in the morning. It extended to the intercostal muscles on both sides, and was so intense, that he had been in a continued state of profuse sweat. *Flexion* of the body and coughing much aggravated his suffering, but his general health, which is never good, was not rendered worse. In the presence of Mr. Fernie, jun., of Kimbolton, I introduced a needle on each side of the spine, when he instantaneously complained of the pain shifting to the upper part of the sacrum. Having invariably found this to be a favourable occurrence, I was encouraged to introduce a needle into each of these parts; and on removing them at the end of five minutes, my patient was enabled to put the body into many different positions, without feeling any pain in the *back;* and the only inconvenience he experienced in the intercostal muscles, was a sense of constriction when he attempted violently to bend the body. I prescribed four grains of Dover's powder to be taken every four hours, and desired to see him

the next morning; when he stated that he had remained free from suffering for several hours, but then had a slight pain situated about three inches *above* the sacrum. On using a needle to this part, he suddenly started, and stated that the pain had *flown* to the intercostal muscles of the tenth and eleventh ribs, (to use his own words,) "as if a person, from the inside, had bobbed his finger against the part." I now withdrew the needle, and inserted it there, which effected perfect relief, as he has continued well ever since.

13, *Princes'-street, Leicester Square, April* 4, 1823.

ART. XIV. *Case of Tetanic Affection, in which the Oleum Terebinthinæ was successfully employed.* By WILLIAM TOMS, Esq. Member of the Royal College of Surgeons.*

HAVING lately read the report of a case of tetanus cured by the oleum terebinthinæ, recorded in a late number of your valuable Journal, I am induced to trouble you with this communication.

Susanna Somerton, a young woman, residing in this town, about twenty-five years of age, had been for a considerable time past the subject of attacks of epilepsy, the exciting cause of which was attributed to fright. On being called to attend her, I perceived the energies of the brain and her intellectual powers had been much enfeebled, which I supposed was caused by the severe paroxysms of epilepsy she was subject to. Scarcely a week passed on without her being attacked with the most violent convulsions; after they had subsided, she remained in a state of stupor for a considerable time, and appeared perfectly insensible to what had taken place. The patient being of a full plethoric habit of body, and considering the symptoms indicated a determination of blood to the head, she was bled freely from

* London Med. and Phys. Journal, May, 1823.

the arm. I then applied blisters to the head and neck; she was also freely purged with the Pulv. Scam. cum Cal. and Infus. Sennæ, cum Magn. Sulph. I then followed up the treatment by giving her some of the most powerful antispasmodics. She was evidently relieved by this treatment, the paroxysms being less frequent, and much less severe.

Her mother called here early one morning, to inform me this young woman was again suffering from a severe attack of those fits; and they were dreadfully alarmed by her being unable to open her jaws, which had remained immoveably closed for eleven hours. On visiting the patient, I found her in the state described by her mother. She had complained of great pain and stiffness in the back part of the head; also at the lower part of the sternum, shooting to the back; the muscles of the spine were much affected, and the trunk of the body forcibly bent backwards; the extremities rigidly extended, and the stiffened parts affected with violent contractions; the eyes immoveable in the sockets, and considerably protruded; pupils dilated; her countenance denoted intense anxiety; and the pulse 110. Fortunately she had two decayed teeth; therefore, I repeated my former treatment with little difficulty. Two blisters were also applied on either side the jaws. In two days the jaws opened, and she was enabled to use her mouth as before.

Five days after, she was attacked in a similar manner, and the jaws remained closed for three days. The same treatment was adopted with equal good success. She continued tolerably well for eleven hours, when all the former symptoms returned with redoubled vigour. The same plan of treatment was pursued, without the slightest effect, and every thing that was administered proved ineffectual. Her jaws remained locked for six days and nights, when I received the London Medical and Physical Journal, and was much pleased to find a case of tetanus cured by the oleum terebinthinæ. I therefore gave my patient immediately Ol. Terebinth. ℥ss. in a little gruel, and repeated it every three hours. The third dose completely restored her; the

mouth opened, and she regained the proper command over the muscles. The spasms were much relieved on taking the second dose; and, on repeating the third, the bowels became excessively purged, and violent vomiting was produced. She also described a peculiar sensation felt at the extreme points of the finger and toes, after taking the turpentine. The jaws have been locked four times since the first exhibition of the ol. terebinthinæ, and each time it was repeated with equally good success. The mouth opened within one hour after the second dose was given. The patient's health is generally improved.

However trifling may be the observations I have troubled you with, I well know you will pardon me for presuming to submit them to your notice. They are in themselves of little or no value; but they may serve as hints for the more successful treatment of an affection which has so frequently defied the most zealous efforts of the surgeon.

Kingsbridge, Devon; March 2, 1823.

REVIEWS.

Quidquid venerit obvium, loquamur
Morosa sine cogitatione.
MARTIAL.

ART. XV. *Address to the Physicians of Philadelphia on the present decline of medical character, and the means of advancing professional respectability.*

An Oration delivered before the Philadelphia Medical Society, pursuant to appointment, by Hugh L. Hodge, February 15th, 1823.

Extracts from the Medical Ethics of Dr. Percival, Philadelphia, 1823.*

IT is a fact, which, though painful to be confessed, is too true and evident to be denied, that the medical profession in this country, and we believe in our own state and city more particularly, so far from continuing to occupy that distinguished and exalted station to which it had been raised by the virtues of many of our predecessors, and which, viewing its objects and its benefits to mankind it is so fairly entitled to hold, has, within the last few years, suffered much in its character and reputation, and descended in some measure below the level of other liberal professions. Conscious of this, and animated by the natural interest which every generous individual must take in the welfare and character of the science which it is his province to cultivate, we have

* Communicated.

long entertained the desire of exerting our feeble powers in defence of the dignity of medicine, by pointing out some of the causes of its present state of degradation, and some means calculated to promote its respectability. We shall therefore proceed to offer a few observations on this subject, and at the same time present some remarks on medical education, and the more essential points of medical ethics.

After some reflection and hesitation as to the most proper manner of performing this difficult task, we have thought that a review of the works, the title of which will be found at the head of this article, would answer the object intended better, and perhaps more completely than any elaborate essay from us on the subject. It will at least serve to show that the present condition of the medical character in this country, has attracted the notice of many individuals of considerable abilities, and that great talents have already been displayed in well meant efforts to raise its fallen dignity.

The author of the address, who from motives very easy to be understood, has thought fit to conceal his name from the public, has shown in the composition of this little work a considerable share of elevation of mind, vigour of talent, and discriminating judgment; and given evidence of a noble, generous heart, and honest, independent spirit, which entitles him to our warmest admiration. Nor should we neglect to express here our entire approbation of the mild, temperate, and impartial manner in which he has executed his design, and pointed out some of the many abuses practised by the unworthy portion of the profession; a method, which, in the opinion of all polite and enlightened individuals, must appear better suited to circumstances, and more promising of success than the invective and personal insults so generally indulged in by many self-constituted guardians of professional respectability.

We commence this analysis by presenting to our readers the following sketch of the former and present condition of

medicine in this country. It is given in the language of our author.

"The great and extensive benefit of the healing art," he says, "the necessary qualifications, and vast responsibility of a physician, entitle the profession to the rank assigned to it by every enlightened community; but the late unhappy dissensions among its members, have, with causes to be developed in the course of these remarks, tended to diminish its character, and restrict its benefits. A few years since, Europe looked with astonishment on the rapid improvement of medicine in this new world, and American physicians were the first to lessen the vast debt which science owed. Persevering endeavours to add to the stock of knowledge, and increase the resources of his art, strict integrity, an enlightened understanding, dignified behaviour in society, and courtesy towards his brethren, characterised the legitimate disciples of Esculapius. No factitious claims were acknowledged, the pretensions of the boaster were doubted, the pride of station yielded to retiring merit; and intrigue disgraced only its author. The name of brother was not then an unmeaning word. All laboured as in a common cause, and every improvement in science was not merely an individual, but a *general* benefit.

"Much is yet required of our hands, but how sadly is the picture reversed. Assuming its functions, ignorance arrogates to itself the honour of this high office. The baleful weeds of impiricism begin to thrive. Each no longer considers the credit of the profession identified with his own, but strives too often to elevate himself on its ruins; and by undervaluing the services of others, to magnify his own. Rudeness takes place of courtesy, condescension degenerates into meanness, politeness into sycophancy, senseless vacancy is mistaken for silent thoughtfulness, and upstart garrulity usurps the authority of hard-earned experience; discord prevails, and unless we speedily harmonize, the title of physician will cease to be a promise of respect."

We are perfectly aware that, by many, this picture of the present decline of the medical character in this country, and the comparative view of its condition in former years, and at the present instant, will be considered as exaggerated, and carried far beyond proper limits. Granting this objection to be, in some degree, correct, it will at least be confessed, that if, in reality, the medical profession here has not as yet deserved the contempt, which our author, from the above quotation, would seem inclined to believe it to have done, the period is not very distant, when, unless proper means be promptly adopted and enforced, it will be deservedly erased from the list of honourable occupations, and sink beneath the level of the meanest of all professions. On the causes of this decline, we shall not here engage in any minute investigation, since from its immense importance, the subject would require, in order to be fully and properly developed, more room than the limits of this article will conveniently allow. We shall, therefore, content ourselves with a few remarks on the most prominent of these causes.

Admission of Members.—It will be acknowledged, that among the many causes of this depreciation of the medical character, the admission into the profession of persons totally unqualified, from want of education, or from intellectual and moral obliquity, to a faithful and creditable performance of its many and arduous duties, must be regarded as most operative; and we do not hesitate to state, that in this country, more especially, it has been productive of immense injury. Whether this be the consequence of want of attention in those who occupy the honourable office of public teachers, or the effect of a vicious organization in our public institutions, we cannot here pretend to decide with accuracy. The exalted opinion we entertain of many of the professors of our schools, and the full confidence we have in their moral rectitude, prevent us from attributing all cases of medical abortions to any neglect in the performance of the duty allotted to them, but rather lead us to consider it as the

immediate consequence of the defects existing in the regulation of the schools themselves. With the best wishes, and the most upright intentions, a professor in the greater number of our universities, owing to the very improper plan on which examinations for the doctorate are conducted, cannot always avoid passing his suffrages on candidates, whom a better system would *betray* to be unqualified to undertake the responsible duties of a physician. A single examination, seldom extended beyond an hour, and frequently terminating in less than half that period, cannot afford sufficient time to ascertain the real talents of a young man, and pronounce him fully prepared to encounter, and combat, with prospect of success, the many modifications of disease. Another serious circumstance, detrimental to the character of the profession, arises from such hasty examinations. Little time is allowed for the defence of the theses presented by the candidates—some are passed unnoticed, others not even read by the professors; hence, it happens, that many are often accepted, which are devoid of sense, and even betray an ignorance of orthography, and which, when they become exposed, from the vanity of their authors, to public view, are not only calculated to do no credit to the institution by which they have been received, but even sometimes, will become a fit subject for the sneers and sarcasms of some, and the reproaches and contempt of all.

On the subject of the admission of members in the profession, the author of the address now before us, indulges in many sensible remarks, and closes his chapter with the following salutary advice to public teachers.

"The last and the most important office," he says, "is the granting of medical honours, and affording the most direct passports to public confidence.

"In your examinations for the degree of Doctor of Medicine, you should have no partiality or resentments to gratify. Exact a strict compliance with all the prescribed requisites, canvass well the merits of the candidate, and if you have objections, state them with all possible delicacy

at the proper time and place, otherwise you may so discourage him as to paralize his future efforts. If he is bound to present a medical dissertation, you are under equal obligation carefully and deliberately to read it. Want of time will be no excuse for allowing ignorance to pass, or injuring the credit and prospects of the applicant, by hasty misconceptions. Expect not a mere reiteration of your own views, but rather cherish a spirit of inquiry. Allow no idle disputation, but give due weight to the arguments of your young opponent, and if his position is well sustained, be not offended. Anger rouses resentment, and the vexation of being unkindly repulsed, cannot easily be forgotten. Make no unfair exactions, for by them you forfeit your claim to future respect.

" Finally, when you come to a decision, the man must be lost in the professor. The delicacy of friendship must not impose on society, by permitting you to smuggle pretenders into the list, and undervalue the labours of the deserving candidate. Solid worth should be the only claim to notice, and this should always be acknowledged. Then would the diploma be a recommendation to favour, and a promise of usefulness ; and the names of professors have, *at least*, the weight of their private testimony. Custom or tenderness will not exonerate the man from censure, who can, in a public capacity, bestow praise unsanctioned by his judgment, or whose pen will record what his tongue *dare* not utter."

2*d*. " *Of Empiricism*."—The next cause to which our author adverts as derogatory to the medical character, is the allowed progress of empiricism. " As long," he says, " as our art remains in its present state of imperfection, and disease continues to baffle the best directed efforts, the hope of the afflicted, and credulity of the weak, will give some currency to the nostrums of ignorance and fraud. But when in any way, either indirect or positive, *we* appear to countenance them, feeble hope is kindled into expectation, imagination dethrones reason, and in the fleeting moment

of delusion, testimony is afforded which the fatal catastrophe soon falsifies."

A very little attention will serve to convince any one, that among the many causes which have contributed to the decline of professional respectability, more especially in our state, the one here mentioned stands pre-eminent, and that much of this effect arises from the non-existence of a positive law, such as found in many of the countries of Europe, and even in some of our neighbouring states, by which all individuals are prohibited from practising medicine, without furnishing a certificate of graduation, or in defect of this, undergoing a regular examination before a medical committee appointed for this purpose, and obtaining from them a license. Nor would the advantages derived from such a law be limited to the upholding of professional respectability only; so far from that, we hold it as an indisputable truth, that our legislature, in passing the ordinance, and enforcing its performance with all the means in its power, would confer, on the community at large, a most important service, a most inestimable blessing, by thus putting an effectual stop to those medical assassinations, by which thousands of valuable lives are daily sacrificed; and to the members of our assembly, we therefore would appeal, and offer this measure as one deserving of their serious attention; sincerely entertaining the hope that, ere long, it will be viewed of as much real importance by them, as it is by ourselves, and the greater part of the enlightened public. By virtue of such a regulation, unqualified pretenders would be prevented from imposing and practising their abominations on the deluded minds of ignorant, and even of educated people—the dangerous weapons by which diseases are combatted, would be placed only in hands competent to their proper use, and the avenues of the science would become cleansed of the filthy vermin of unskilful men, and gossipping old women, who, when permitted to exist, are naturally associated, in the public mind, with the

regular part of the profession, and thus lessen its importance and dignity.

This same cause seems to have operated perniciously on the profession, even in the earliest periods of medical history. In his law, the venerable Hippocrates, in speaking of the condition of medicine in his times, makes mention of it in the most positive terms. Medicine, he said, is the most illustrious among the arts ; but owing to the ignorance of its cultivators, and of those who employ these quacks as their physicians, it has become the most vile and despised of all. This, according to him, arises from the fact, that medicine was the only profession, against the bad practices of which cities had not decreed punishments. All other kinds of sophists were subjected to them ; they were banished from the cities ; their property was confiscated, whilst in medicine only, all was tolerated.

Nor does it appear less certain that the unrestrained liberty, which prevails in this country, of offering for sale all sorts of nostrums, from the exalted panacea and renowned vital elixirs, down to the most insignificant pill, has contributed, in no small degree, to throw discredit on the profession. The frequent publication of pretended cures, accomplished in a short time, by means of some secret drug, after the failure of regular physicians, cannot but be productive of this effect. We would desire, however, and before we proceed any further into the subject, to be well understood as not undervaluing the real utility likely to be derived from the proper administration of certain secret medicines, and as reprobating their use in all cases. On this point, and we trust this only, our opinion is somewhat at variance with that entertained by the author of the address, who seems inclined to believe that popular remedies only, whose properties are known, should be encouraged by the physician, and that he is bound " to forbear sanctioning all unknown remedies, whether they owe their adoption to *direct inspiration, lucky dreams, the kindness of a stranger, the good nature of an Indian, or the necessities of the pro-*

prietor." Instances have come under our own immediate observation, and many more are recorded on testimony too good to be doubted, in which such medicines, properly used, have been productive of the most decided benefit, and succeeded in effecting extraordinary cures, even after the complete failure of the best indicated, and most judiciously administered remedies. We should, consequently, regard the voluntary omission of their employment, in cases similar to those in which they may have been found beneficial, as unpardonable, and view the physician, who could thus exclude them altogether from his practice, as tampering unnecessarily with the lives of some of his fellow-creatures. At the same time we regret their too general diffusion, and would hail, with the utmost pleasure, the existence, in this country, of some law prohibiting the free sale of secret medicines, until their ingredient articles had been made known to a board of commissioners well qualified to the performance of this duty, and until they had received from these a sanction for their employment only in the particular cases to which they were thought applicable. Such an ordinance is, we believe, the more desirable, as the number of these remedies is far greater here, than probably in any country of the world, and being generally dispensed by low and illiterate men, who prescribe them indiscriminately, they have become a public nuisance.

But if, from the number of regular quacks with which our state is overspread, and the perfect liberty which the most illiterate man, from the stupid African to the common and ignorant mechanic, has of assuming and enjoying all the privileges of the most learned and worthy member of the faculty, and of distributing his nostrums, our profession has lost, or still continues to lose, a portion of that respect to which it is entitled; what must not be its degradation, when regular physicians do not scruple to pursue a line of conduct reprehensible in the extreme? When we see them practise, with barefaced impudence, some of the detestable tricks of quackery—enter into private and clandes-

tine arrangements with the most notorious empirics, for the exchange of patients—give them such countenance and support as must mislead the credulous; and when we see a well educated physician, even cross a wide ocean, to visit a foreign metropolis, as the avowed agent of an ignorant quack, and vender of a secret panacea!—when we see all this, we are ready to acknowledge that the censure of the world is just, and its reproach merited.

On the influence of quackery on the profession the author of the address indulges in sensible remarks; some of which, from their being worthy the particular attention of all American physicians, we shall take the liberty to transcribe here

"Of the many cases which fall into the hands of the advertising quack; the recovery of some is to be expected, and whether there be a connection between the cure and contrivance or not, he will profit by every lucky incident, and though you may be satisfied he cannot justly boast success, your mere unqualified admission of the fact, will be made to serve his purpose, and his puff will very soon be ornamented with the imposing appendage, '*Recommended by several physicians of this place, and elsewere.*' Thus many are made to assist his fraud, who never believed in his miraculous powers.

"In order therefore to limit, as much as possible, his depredations, avoid all direct intercourse with him. If you are invited to consult with him, refuse. This the safety of your patient requires, for your chance of success would be greatly diminished by his blind interference. Many, by consenting to meet creatures of this order in the hope of instructing them, put implements into their hands which are afterwards mischievously applied by their erring judgments.

"Does any one assert, that as the people will have their antidotes, and charms, their specifics and panaceas, 'tis useless to oppose them? Let him recur to the origin of these absurdities he now derides. By our profession they were

conceived, and by us were they propagated, and however ridiculous many popular notions may now appear, they owe their existence, in the infancy of our science, to the profound cogitations of some learned doctors. Then think it not preposterous to attempt the substitution of more correct views in place of errors of our own planting. Every enlightened physician must see its propriety, and if we once unite in the effort, the fascinations of antiquity will soon vanish before the clear light of reason; modern *wonders in the healing art*, will be found of every day occurrence, and the chance cures of inspired ignorance be fairly estimated." P. 14.

On the 3d, 5th, and 6th chapters of the address, in which under distinct heads the author has offered many highly interesting and judicious remarks on medical etiquette; behaviour towards patients, and charges, we shall abstain, in this place, from entering into any details; reserving the consideration of these several subjects to another part of this article, in which we shall take up the examination of some points of medical ethics. We therefore confine ourselves now to the fourth chapter, on *the mode of obtaining medical offices*.

This subject must be regarded, by all who have at heart the interest of medical character, as one of the deepest interest; and we are prepared to maintain that our profession has received, from the very improper manner in which some of its members have conducted themselves in their efforts to obtain preferments, a most indeliable stain. Our author has remarked, with his accustomed intelligence, that "a laudable ambition will excite every man of dignified feeling or noble sentiment, to strive for excellence, and induce him to value every honourable man of professional advancement, as the road to that eminence, his superior talents, or higher merit entitles him to hold. But there are inferior souls who, forgetting the true aim, make priority of place their measure of desert, and pant for its attainment, without seeming to consider that excellence alone

can make it honourable." Few we believe will feel disposed to call in question the justness of these observations, which would receive additional support from a cursory detail of the late unhappy events that have engrossed the attention of the medical community; or refuse to coincide with our author in the assertion, "that when men of the latter description start for eminence, they soon find the road of virtue too steep and rugged; turn off into the by-path of intrigue and manœuvre, seizing on any adventitious aid, unmindful of every thing but the attainment of their purpose."

Into this detail of the debasing intrigues of applicants for offices, unproductive of any real benefit—of the mean and sickening courtship paid to ignorant managers of public institutions for their suffrages—of the shuffling tricks employed, and the defaming reports circulated by some candidates, upon their rivals, in order to insure their preferment, or supplant senior and respectable brethren, &c. &c. we shall not now engage. For although abundant proofs of this ungenerous conduct and of its evil tendency could be readily adduced, we respect too sincerely the reputation of this journal, to sully its pages with their enumeration.

The author of the address has, we believe, discussed this subject in a manner creditable to his judgment, and meriting our praise. Descending to no direct or pointed personal allusions, and censuring no one individually, he has nevertheless portrayed in a general way the disgraceful conduct of many, and concludes his chapter with the following advice, which to every one at all acquainted with the state of the medical profession in this city for the last few years, will appear well deserving of the strictest attention. "If, on the creation or vacancy of any place which you think yourselves qualified to fill, you determine to seek its attainment, make a fair and regular application, and if you have superior claims, state them respectfully. Urge nothing with the earnestness of the suppliant, but show, by your independent, though polite manner, you deserve what you

ask. Never condescend to the base trick of electioneering. To a noble mind obligation is always painful, but *who* that possesses one spark of generous sentiment can brook the thought of soliciting favour from those he lightly esteems? Every man, however humble his station, if he fill it with integrity, should be treated with respect; but mere moral rectitude cannot enable him to judge of intellectual worth or scientific attainment. Now it often happens, even where men strictly honest are preferred to the management of public institutions, that stupidity or ignorance, or both, characterize the individual whose decision is to influence your fortune. Here you should possess too much real dignity to allow yourselves to urge claims where they cannot be appreciated, and thus acquire the reputation of empty braggarts. To boast superiority before men entirely unqualified to estimate medical pretensions, is degrading; but to court, and compliment, and flatter, and importune those whom, under common circumstances, you would be scarcely willing to recognize, is meanness in the very extreme. Whatever is reduced to the level of a mean capacity will be lightly valued. This course of office begging, and favour seeking, must therefore defeat its object, for in this way preferment can only be bought by a sacrifice of character. Moreover, it is almost universally true, that rapid growth indicates speedy decay, and the man who rises into notice by a puff will soon find his airy height dangerous, and his support feeble. Then do not, as you regard the interest of the profession, and your own ultimate advantage, follow the unworthy course. Let your acquirements be solid, your principles sound, your resolution firm, your attention strict; in a word, make yourselves useful to the public, and wait the event. Your advancement may be slow, but it will be sure and lasting. The breath of popularity may be unpropitious for a time; but it cannot harm you. Even its reproaches will leave you spotless."

We cannot but experience some regret that our author, in enumerating the causes of the present decline of the medi-

cal character, should have omitted to notice several, which, in our opinion, have greatly contributed in producing this unhappy effect. Among these, the measures usually resorted to by many individuals in order to gain practice, were certainly of a nature such as to command a portion of his attention, and elicit from him the severity of his criticisms; since there is not a man, possessed of intelligence, and who has witnessed these extraordinary and reprehensible measures, who will not coincide with us in the belief that from them the profession has lost no inconsiderable share of its respectability. We shall not attempt here to detail in all its particulars this sinister behaviour of our unworthy brethren, as it must be perfectly familiar to all the members of the profession. The history of our art proves to us that such unworthiness has at all periods appeared among some physicians, and a knowledge of the human heart, convinces us that it will continue to prevail in every part of the world where impudence—selfishness—sordidness and ignorance constitute the leading features in the character of some individuals. It will be sufficient to mention that in this country, from want of proper understanding among physicians, such a class exists, whose numbers are greater than elsewhere, and who have contributed in no small degree to throw discredit on the profession.

Another cause we shall advert to as detrimental to the medical character, and which assuredly deserved some notice from our author; it is, the spirit of animosity—the jealousies—controversies and strifes that have always prevailed among a certain class of physicians, and have been carried in this country to an almost unlimited extent. It has often been said, and we believe with truth, that doctors quarrel more among themselves than lawyers, or the members of any other profession. Why this should be the case is not a little difficult to determine with precision; though the cause may probably be sought for in the greater uncertainty existing in the principles of the medical art, by which differences of opinion, and consequently disputes ensue; and also in

the circumstance that physicians, owing to the very nature of their occupations, are not allowed that frequent association among themselves—that free, unrestrained interchange of feelings and sentiments which lawyers, divines, and others so readily enjoy. But however this may be, true it is that such animosity, such mean jealousies, and such frequent quarrelling, have at all times, and lately more than ever, contributed to render the medical profession contemptible in the eyes of a vast majority of the community. Nor has this unhappy and baneful spirit displayed itself in words only, or in the composition of polemic writings; personal attacks in some instances have been added—blows not even spared—the columns of *newspapers* have been filled with abuses; and, worst of all, the pages of scientific publications have served as the vehicles for every species of shameful, injurious, and debasing epithets. Under pretext of reviewing medical opinions, critics, transcending the just bounds of their privileges, have frequently betrayed their animosity to authors, vented their spleen and engaged in personal abuses, clothed in language ill fitting members of an honourable profession—and all this to avenge real or imaginary offences; or merely, in some instances, to gratify a propensity natural to malicious, envious, and jealous souls.

Nor has professional dignity suffered less, in many respects, from a system diametrically opposed to the one just adverted to, and which has long been recognized under the appellation of the *system of puffing*. *Passez moi de la Rhu barbe et je vous passerai de Senné*, has long been a proverb among the French; and on this principle the practice of many, otherwise respectable physicians, in this country has been grounded. Dedications of original, translated, or commented works—letters and essays contained in medical journals; and anonymous pieces filling the columns of public newspapers, might without difficulty be adduced, which are replete with compliments and eulogiums too mean, sickening, and base to be dictated either by sentiments of personal friendship, or a sincere admiration for talents; but which have

evidently arisen from a confident hope, in the writers, of gaining, by this system of flattery, the patronage of some influential member of the profession, and through him the accomplishment of interested and often sordid views. But we have already extended these remarks far beyond what we had anticipated, and therefore proceed to offer some observations on medical education. In doing this, we shall lay before our readers the opinion entertained on the subject by Dr. HODGE, whose excellent oration has for its object to portray the importance and dignity of the science of medicine, and at the same time noticing some of its difficulties and duties.

The first circumstance to which Dr. H. calls attention as indicative of the dignity of our profession, is the talent required for its pursuits. He notices, very properly, a circumstance which no doubt has been observed by every one, that in public estimation no mind is too feeble, no talent too contemptible for the study of medicine; and that when a young man can pursue no other liberal profession with advantage or credit, he is devoted to physic, with the highest hope and fullest confidence. That such is the prevailing opinion is true, and within the circle of our own personal observation, many instances have occurred in which it has not been merely entertained, but even enforced by direct experiment. But this assuredly must be viewed as a palpable error, and no physician, who alone is capable of judging of the difficulties of his art, will refuse to coincide with Dr. H. in the opinion that there is no employment which requires more strength of mind, a more enlarged understanding, and more diversified talents than the science of medicine. "Here," as Dr. H. very judiciously observes, "we are called upon to investigate every source of knowledge, to separate truth from all the false theories, the partial statements, the distorted facts which have been sanctioned by time and authority; to pursue her among the rage of controversy, the superstitions of the ignorant, and the subtilities of the learned; laying aside with the greatest self-denial all the

influence of a warm imagination, all the suggestions of a feeling heart, and all the prejudice of an ill conducted education: here we must often decide, while the comfort, the happiness, and the lives of individuals hang on our decision and await our answer; at the same time doubts and difficulties of the most distracting character are congregated around us, while one moment of hesitation seals the ruin of our reputation, the destiny of the patient, and the happiness of his friends. What mind is sufficient for these things? Do they not demand one of the most retentive memory, of the nicest discrimination, and of the quickest apprehension? one capable of embracing, comprehending, and of acting upon the most abstruse, and the most complicated subjects; and above all, a mind, in which every feeling and every faculty are under the dominion of the most unerring judgment? This last talent may be considered essential to a physician; by it I mean the power of deciding correctly between circumstances and facts, which, to a common mind present no shade of difference. To this should be added great strength of mind, by which a physician can rely confidently on the dictates of his judgment, and can commit all with a safe, although an anxious conscience, to the decisions of futurity.

"But perhaps I have not mentioned a talent more important to the practitioner of medicine, than to a member of any other profession; without which he is incapable of improving his art. I allude to what is properly termed genius, or the faculty of inventing or discovering. All the learning and knowledge which have been treasured by the observation, and the experience of centuries, cannot make a good practitioner. As a celebrated divine has affirmed, a man must be born a physician; that is, unless he is furnished by nature with an original inventive genius, with a certain faculty of discovering the characteristic traits of disease, and of adapting remedies to its cure, he cannot practise medicine without dishonour to himself, and without detriment, perhaps destruction, to those committed to his care."

This exposition, by Dr. Hodge, of the *natural talents* requisite in a physician, will appear to every one, faithfully drawn up, and we cannot omit this opportunity of expressing our sincere regret, that there does not exist, in all our medical schools, some regulations by which such candidates as manifest a deficiency of talent—who betray great intellectual or moral obliquity, or an ignorance of subordinate branches of education, should be discouraged from prosecuting the study of medicine. In this way, much of the discredit which the schools yearly accumulate on themselves, would be avoided, and the profession disencumbered of that mass of ignorance, the refuse of schools and colleges, so well calculated to stain its dignity and reputation.

An attentive examination of the subject will serve to show, that the very many difficulties encountered in the study of medicine, arise as a necessary consequence of the nature and present imperfect condition of the science. The medical art, as has been well observed by a very intelligent author, (London Med. Repository, 1820,) is one of judgment, not of rules. Unless the judgment have been exercised and matured, rules are of very little use. This peculiarity belongs almost exclusively to medicine. The divine has the authority of scripture for his guide; the lawyer, the decision and precedents of former times: what was yesterday true and binding in doctrine or in authority, is equally so to-day; but the physician has no standard to direct him in the hour of doubt and emergency. The founders and fathers of his art can assist him; but cannot determine for him.

Our principles, though in many instances good, and deduced from correct data, do not, however, possess a degree of absolute certainty. Our theories are all imperfect. The human machine on which our remediate means are applied, is of the most delicate kind; its structure of a most complicated nature; its laws are as yet little understood; its derangements are infinitely various, and enter into many and diversified complications, according to age, temperament, cli-

mate, and many other circumstances. Our remedies are various—their nature little understood; and their effects constantly modified by a number of unknown causes; notwithstanding which, however, we are often summoned to act without study and without preparation.

"To what," exclaims Dr. Hodge, "can the medical practitioner resort amidst the dangers of his station? Where will he discover the Ariadne thread to guide him from this labyrinth, more perplexing and more dreadful than that of the Cretian tyrant? Where, but in the resources of his own genius, improved by knowledge and directed by judgment." "Truly, with the celebrated philosopher, *Vogel*, we may affirm, that there is no science which requires so penetrating an intellect, so much talent and genius, so much force of mind, so much acuteness of memory, as the science of medicine."

Next, Dr. Hodge passes to the consideration of the knowledge which the cultivation of medicine demands. "The accomplished physician," he says, "renders all nature and all art tributary to his science; he wanders through animate and inanimate beings; he examines the productions of the earth; he explores its deepest recesses; he consults the heavenly bodies, and from all, collects important assistance, and is furnished with new ideas which redound to the improvement of his art."

An enlightened medical practitioner should then possess all that diversified information, comprehended under the title of liberal education. The Greek, Latin, and French languages, and if possible, the German and Italian, in all of which the works of science have been written, should be cultivated with diligence. An acquaintance with history, both ancient and modern—some notions of politics, poetry, and the various branches of the belles lettres, is deemed, and we believe, with propriety, of manifest advantage, and should never be neglected. The more important study of mathematics, natural philosophy, including botany, chemistry, mineralogy, and astronomy—a knowledge of the facul-

ties of the human mind—the connection of mind and matter, with their natural influence, forming the science of phrenology—logic—moral philosophy, or the methods by which the mental and moral powers may be directed to their proper and laudable objects; all these studies are of essential utility to a physician, and cannot be omitted from the number of those to which he should direct his attention. To complete the character of a well educated gentleman, some knowledge of law is necessary, not only in a general sense, as applies to nations and the rules of their intercourse, but as affecting the transactions of corporate bodies, and of individuals. To this should be added an acquaintance with the natural history of animals, especially of the human species; "all which should be accompanied, adorned, and rendered useful, by a thorough acquaintance with men and manners, which can only be obtained by frequent intercourse with the cultivated and polished circles of society." P. 11, 12.

The studies we have above enumerated, and a statement of which, Dr. Hodge observes, is made on the authority of some of the best writers, and sanctioned by the character and attainments of those great men who, in every age, have ornamented our profession, and vindicated its reputation from the obloquy of an envious world, will, we entertain little doubt, be regarded by many as far more extensive than is essentially requisite in all who engage in the study of the medical art. Thus, it will be said, that in order that a man should be able to practise medicine with safety to his patients, it is not at all necessary he should be informed in all the subordinate studies, the long list of which we have given above; that a plain education, limited to the correct reading and writing of his own language, is sufficient; since all books necessary to be read, are originally written in that language, or have been translated into it; in other words, that a physician need not be better educated than a common mechanic; and, indeed, when viewed superficially, the observation may seem, in some degree, correct.

But those who maintain this assertion, should ever bear in mind, that it would equally apply to all professions in which the necessity for learning has never hitherto been called in question, and that by carrying their own remark still further, it might with as much propriety be maintained, that to cure a disease, a man need not even possess the limited education here mentioned; examples not being wanted to prove that individuals, incapable of reading their own native language, have, notwithstanding, from a long experience, become successful routine practitioners. But the fallacy of this mode of reasoning must be apparent to every one. We hold it to be a fact placed beyond the reach of contradiction, that no individual can prosecute the study of medicine with credit and real advantage, who has not stored his mind with general knowledge, or in other words, who has not acquired, by constant study and meditation, the art of reasoning. It is true that native genius may, and sometimes does rise superior to acquired advantage, and that individuals occasionally appear, who, overcoming all the disadvantages arising from a deficient education, and by virtue only of their inherent mental capacities, aided by force of industry, have shone with brilliant lustre, and occupy an honourable station in the annals of the science. But such instances are limited in their number; and in the long list of physicians or surgeons, who deserve a mention in history, few will be found who, like the late J. Hunter, can be pointed at as instances of this extraordinary power of inventive genius. This being the case, it must appear evident to all intelligent minds, that not many of these *routinists* in medicine, will be able to add improvement to the stock of knowledge already possessed. Having never acquired the habit of study, and having lost, in idleness, the most precious moments of their life—moments at which the mind is most susceptible of expansion, and of receiving lasting impressions from literary occupations; their intellect will, as it were, contract; their reading will be much limited, or will prove of little advantage to them; their writings will be few, ill digest-

ed, and badly executed—medicine, in fact, after a century, will have made no progress, and at best be little more advanced than at the present moment. Were it necessary to adduce proofs in support of this opinion, they might be sought for in the history of those physicians who have contributed most to the improvements of their profession. Few are to be found among them who, to the title of good practitioners, have not united that of learned physicians, and have not been renowned for their classical education, and the diversity of their knowledge.

Nor is this all the advantage that may be derived by the profession, from an intimate acquaintance, in its cultivators, of those branches of study, we have enumerated above. Ignorant men are seldom respected or esteemed, (unless perhaps for their moral worth,) their company is seldom desired; hence, the profession loses a portion of that respectability which it ought to possess. Again, a physician who is not respected, seldom inspires confidence—his prescriptions are either not followed, or are attended to with diffidence and hesitation, and he is soon supplanted, or made to advise with all the quacks, or gossipping neighbours which chance, or the desires of the patient or his friends, may throw in the way. From all which we conclude, that a physician should not only be a skilful routinist, but a well educated and learned man, and that it would be highly advantageous and honourable to the profession of medicine in our state, were all its cultivators under the obligation, (as is found to be the case in some of the neighbouring states,) of furnishing testimony of their having received what is denominated a classical education, before they could be enrolled among the list of candidates for the doctorate.

But however this may be, Dr. Hodge very properly regards these studies as forming a proper introduction only, to our inexhaustible science. He consequently passes on to notice in a cursory manner those branches which by their union constitute the science of medicine. "Professor Gregory," he says, "defines medicine to be the art of *preserving*

health, of *prolonging life*, and of *curing disease*. This threefold design of the profession, should constantly be kept in view by the student and practitioner of medicine; and a very little attention will prove that these objects cannot be obtained without laborious study and accurate observation. They will imperiously demand a knowledge of the structure of the human body, acquired not from descriptions or plates, however well executed, but by practical and personal investigation, and it should be illustrated by comparative anatomy. The functions of the body, and the laws by which they are governed, forming the science of physiology, claim much study; and here no progress can be made without considerable acquaintance with chemistry and natural philosophy."

It is our opinion, which we confidently hope we entertain in common with all the intelligent members of our profession, that too attentive and minute a study of physiology cannot be recommended. We would however wish here to be understood as not making allusion to that system of speculative physiology so universally taught in our medical colleges; but only to that pointed out to us, and in a great measure developed in the writings of Bichat and of many of his disciples. Lengthened disquisitions on generation and conception—an exposition and refutation of all the various theories which, from the most remote periods of antiquity, have been advanced to account for these mysterious functions—to explain the processes of nutrition and digestion, or prove or disprove the vitality of the blood, offer, it is true, to a teacher, a wide field for the display of his erudition, or the exercise of his ingenuity; but can prove of little real advantage to the student of medicine. His moments being precious, he should reserve the study of speculative subjects to a more remote period, directing his whole attention to the investigation of the various tissues and organs of the body—to their animal or organic functions—to their mutual relations, and to the many modifications they receive from external or internal agents.

"Next to the healthy functions of the system," continues Dr. H. "pathology, or the diseased condition of these functions, demands a very laborious investigation. For under this term are comprehended, the nature of the disease in the abstract, which of course brings under review the various theories which have been promulgated in different ages, and have formed epochs in medical history; the division of diseases, or nosology; their causes, symptoms, prognosis, and the general principles of cure, or therapeutics."

The study of the causes of diseases requires great and diversified knowledge. They exist every where, both around and within us. The atmospherical air, so essential to our existence, the aliments and drinks so necessary to our support, and the various products of human industry destined to render life more agreeable, all at times conspire to the derangement of our organic functions. Hence the necessity, in the examination of these causes, to be previously acquainted with the ordinary and extraordinary conditions of the several kingdoms of nature; to study the pure undisturbed state of the atmosphere, to calculate the effects of temperature, winds, storms, the contamination of the air from marsh and human effluvia, &c. &c. including the difficult subject of the nature, laws, and history of epidemics. Hence also the utility of an accurate knowledge of the effects of aliments in a healthy and diseased condition of the system; of the great influence exercised by the moral over the corporeal system, as proved by the fact that strong sensations, intense application of the mind, violent and deeply rooted passions, cause sometimes the greatest derangements in the economy; of the influence of natural evacuation in maintaining the equilibrium of the system, and their agency when disturbed in producing disease; of dress, manners and customs, &c. &c.

But with these acquisitions, extensive as they may appear, we must not rest satisfied, since we are still unfurnished with the materials for curing disease, forming what is deno-

minated the materia medica. To the study of this branch considerable attention should be devoted, and the virtues and properties of each article, minutely and carefully investigated. This will call for a knowledge of chemistry, or at least of that part of the science necessary to the study of pharmacy.

We must not omit to mention in this place, that among the studies necessary to the physician, medical literature should be particularly attended to. The history of medicine, by which is understood the important eras of the science, the rise, progress, and overthrow of its theories—the causes which have retarded its advancement, the errors of its cultivators, &c. &c. should be regarded as a subject of the utmost necessity, and investigated with diligence. Mr. John Bell has very well observed, that whoever has neglected this branch of study, has a narrow mind, and prefers the little opinions of his particular master to the accumulated wisdom of ages. "He dwells," continues this very intelligent writer, "with enthusiasm upon those theories which have first taken possession of his mind, and never is he able to emerge from the atmosphere of the particular school in which he was bred."

After thus enumerating the various branches of knowledge to which the student of medicine should devote his particular attention, Dr. Hodge next points out the indispensable necessity of applying with unwearied assiduity to the study of clinical practice. "After all this study," he says "all this time and labour, the important and essential branches remain unnoticed; the knowledge, the principles, and the materials thus accumulated are to be reduced to practice. By these, and through these alone, can any man be rendered competent to undertake an art for preserving health, prolonging life, and for curing disease. It is the practical application of medical attainments which forms the continual study of the physician, and which demands so imperiously the enlarged medical genius, without which, learning and science are of no avail."

In the correctness of these remarks, we heartily concur, and would here express our entire approbation of the manner in which Dr. Hodge has spoken of the necessity of paying the strictest attention to clinical medicine, and add our own, to his, regret of the want of this information in the young physicians of our country. According to the system of instruction adopted, and up to the present time, followed in the medical departments of at least the greater number of our colleges, the student is furnished with a knowledge of theories, and of some rules intended to guide him in his future attendance on the sick, and he commences the exercise of his profession without having paid much regard to their clinical application, or even, in some cases, examined a very few patients. To what can we with propriety attribute this circumstance, if not to an unpardonable neglect in the legislators of our universities, of enforcing on the student an attendance on clinical lectures, and of making suitable provisions for the delivery of these latter? We hope we shall not be accused of passing the just bounds of reason, when we declare it to be our firm conviction that this defect in the medical education of this country, is one of monstrous magnitude; injurious to the reputation of the profession, and dangerous in the extreme to the sick; and one to the correction of which, all our efforts should be instantly and simultaneously directed.

Nor are the difficulties by which we shall be encountered, insurmountable. Our public hospitals contain an average of patients amply sufficient for the purpose of clinical instruction, and we hardly doubt that the managers of these institutions would refuse their assent to the establishment of wards appropriated to these lectures, when we reflect that they would prove to them a source of pecuniary advantage, by attracting a larger number of students, each of whom would be made to pay, yearly, a certain sum of money. Already, in one of these hospitals, a ward has been established, where lectures on select cases of medical and surgical diseases, are delivered before a very numerous au-

dience, by very able physicians and surgeons, some of whom are teachers in the university; and we sincerely applaud the zeal displayed on this occasion, by the managers of the institution, and by the physicians who were active in proposing and forwarding the execution of this project. But even here the plan is materially defective, and we believe little calculated to promote the advancement of medical instruction. These lectures are delivered only twice a week; whereas, in order that the student should become well acquainted with all the changes which diseases naturally undergo in the course of their progress—with all the rapid and numerous modifications of their symptoms and character—with the immediate effects of remedies, he should see them at least every day, and that too under the direction of his teacher. Clinical lectures, therefore, should be delivered daily, and if possible twice a day. Nor is this the only defect existing in the present regulations of clinical instruction. According to the plan now adopted, students are not compelled to attend these lectures; and provided they furnish to the dean of the faculty, an alms-house or hospital ticket, they are enrolled on the list of candidates, although, in many instances, they have not entered either of these institutions more than once or twice in the course of a long year; and when they have done so, have contented themselves with strutting along their wards inattentive to all but the desultory conversations of their fellow students; of nurses or patients. Were we called upon to state, in this place, an opinion respecting the most proper means for preventing this neglect on their part, we would, without much hesitation, declare it to be to require from them, certificates of attendance from the physicians of the hospitals, and to refuse them, until these were procured, the honours of the doctorate. But it is gravely said, in objection to this, that during the session of public instruction in the schools, the student's time is so engaged in attendance on the various lectures, that he is not at leisure to attend daily to an additional course of clinical medicine. Granting this, it will at

least be conceded by all unprejudiced and qualified minds, that much of the time consumed in useless discussions on chemical niceties—on the colour, weight, and smell of various gases, which are to be found in the laboratory only—or the wild theories of electricity, galvanism, &c. &c. would be much more advantageously employed in attendance on the sick.

In thus offering our opinion, which we are perfectly aware will be regarded by many, and even by some of our most worthy friends, as heresy, and diametrically opposed to prevailing sentiments, we should wish not to be understood as depreciating the advantages of a chemical knowledge, or proclaiming our belief in the inutility to the physician, of that science. So far, indeed, from entertaining this belief, we have, in a former part of this article, included chemistry among the necessary branches of a liberal and preparatory education, which we trust will entirely exonerate us from a charge of this nature. All we are desirous of establishing is, that when compared, in point of usefulness, with clinical instruction, chemistry must be viewed as greatly inferior; and that should we be called upon to make choice of one or the other, our decision should unhesitatingly be made in favour of the former. We really think, therefore, that a professor of the materia medica might be made to limit his theoretical disquisitions, and teach, together with the virtues of drugs, enough of pharmaceutical chemistry to serve the physician in his future practice, and that the sums annually paid by the student for an uselessly minute knowledge of that science, might thus be applied much more advantageously towards the support of a clinical ward, where medicine would be taught by a skilful and experienced professor.

"Dr. Rush has observed," says Dr. Hodge, "that just principles are in a great degree a substitute for experience. This I most willingly and cheerfully subscribe to, and believe that it constitutes one of the best practical proofs of the claims of medicine to a science. But this does not do away the great necessity of clinical observation; for, how-

ever forcibly and eloquently these principles may be detailed, and however appositely they may be illustrated by a lengthened catalogue of cases, yet, unless these illustrations are not only heard, but seen ; unless they have fallen under the actual personal observation of the student, the principles are not his own, they belong only to his teacher. He will not know how, when, or where to apply them, but will grope in darkness, and be forced to feel his way amidst doubts and anxieties."

Doctor Hodge next remarks, that the utility of medicine is again exemplified by its leading to the practice of virtue. On this subject, however, interesting as it undoubtedly is, we cannot here enter. The length to which this article has already extended, compels us to content ourselves now, with complimenting Dr. Hodge for the excellent spirit which prevails throughout the whole of his oration, as well as for the sentiments of genuine and warm piety with which it every where abounds. They reflect credit both on his heart and understanding. We are likewise obliged to postpone our observations on medical ethics, which shall appear in the October number.

ANALECTA.

On Hypochondriasis and Suicide.

The medical world is presented with a most instructive and entertaining work, under this head, by Doctor J. P. Falret, of Paris, which we regret not being able to notice more in detail. The ingenious author considers the causes of hypochondriasis as intellectual or moral, and that they must act directly on the brain. He attributes the causes of error in the diagnosis of hypochondriasis to "1st, The opinion of the seat of the passions being in the abdomen; 2d. The habit, long prevalent among physicians, of regarding the brain as only secondarily affected."

"Does the tongue become yellow, the epigastric region painful, or are nausea or vomiting excited, under the influence of an intellectual or moral cause? immediately some exclaim, there is gastric derangement, and others gastric irritation, or even gastritis. But why refuse to take into consideration the nature of the cause? why not give their just value to the concomitant phenomena; such as the headach, a certain torpor of ideas, (if I may thus express myself,) the insomnolence, the starting awake, the disorder of the general circulation, the irregularity of the animal heat, the constraint of the voluntary motions? I believe in the existence of gastritis, where the cerebral symptoms having ceased, the disorder of the stomach continues or ceases in degree; but, in the opposite case, is it reasonable not to admit the cerebral irritation as the cause, and the irritation of the stomach as the effect? Ought the diagnosis to be taken from symptoms of small importance and of ephemeral duration, which are often wanting while the nature of the disease rests always the same? This, however, has been done with regard to hypochondriasis."

Plausible as is this reasoning, we must not be hasty in giving our assent to the conclusions drawn from it, nor deny *in toto* the correctness of those writers and practitioners, who have referred the seat of the disease to the digestive organs: the more especially when we know the close sympathy between them and the brain, and that the irritation of one, pretty generally keeps up that of the other.

The diagnostic symptom of hypochondriasis consists, according to M. Falret, in the mental affections: and from this he deduces the plan of treatment, which consists in the physician's winning the confidence of his patient, entering into his feelings, and prescribing exercise, amusement, change of occupation and place, and enlivening society. As to the sympathetic affections, our author thinks they will disappear when the mind is relieved. The cause being removed, the effect ceases.

In his essay on *Suicide*, M. Falret contends that this act is the consequence of delirium, or mental derangement.—"Would it not be true to say, in general, that suicide is the delirium of self-love?" are the words of our author.

Under the head of *Causes* are enumerated, first and chiefly, of the predisposing ones, hereditary tendency. An account is given of the five sons and a daughter of Mr. R. Four of the brothers attempted to destroy themselves; two succeeded. The melancholic temperament is considered by M. Falret as a powerful predisposing cause to suicide. Sex makes a great difference—the proportion of men to women who destroy themselves being as three to one. Education exerts its influence, particularly when the individual is suffered to read romances without any restriction, and to frequent the theatres where tragedies and self-destruction are frequently represented. We doubt

much whether music ought, with propriety, to be cited as one of the causes of suicide by our author. Climate is shown by Mr. Falret not to exert so much influence on the tendency to this act as is generally supposed. Suicide, by no means prevalent among the modern Romans, was very much so among the ancient. The number of suicides has been doubled at Copenhagen within the last twenty years, and has of late rapidly increased in France, though Fodéré and Duglas observed that suicides were more frequent at Marseilles when the thermometer was low, and Cheyne states the same with regard to autumn and easterly winds.

Of the direct occasional causes, the passions, and of them love may be cited as the most general and fatal. Moral uneasiness, indeed, is always a more frequent cause of self-destruction than bodily pain. Religious fanaticism—scepticism in matters of faith—wild enthusiasm, and profligate sophistry of misnamed philosophy, may all be viewed as causes of suicide. The two first have produced this effect in England—the latter two in France.

The proportionate number of suicides in Paris and London, has, of late, been a subject of warm and angry discussion between some of the French and English writers—particularly between Drs. Esquirol and Burrows.

The estimate of this latter gentleman for 1817, is, we believe, tolerably accurate, and is as follows:

	Population.	*Suicides.*	*Proportion.*
Paris,	700,000	300	0.42 in 1000
London,	1,000,000	200	0.20 in 1000

The forms of suicide, though infinitely varied, may, M. Falret thinks, be divided into two general varieties: "one is characterized by the most profound sorrow, a state of dejection and fear, and a particular passion for solitude; the other by great excitement, both physical and moral."

Suicide has at times appeared to prevail epidemically. In 1806, sixty suicides were committed at Rouens, during the months of June and July, which had been extremely hot and moist; much commercial distress had occurred at the same time. In July and August of the same year, three hundred suicides were committed at Copenhagen; the same causes likewise prevailing. In 1793, thirteen hundred suicides took place at Versailles.

To treat the disease with advantage, M. Falret thinks attention to the following circumstances very essential: 1st, The predispositions, natural or acquired. 2d, The occasional causes of their perceptible derangements, their nature and mode of action. 3d, The order and succession of the symptoms, and the phenomena of the sympathies. 4th, The termination of these maladies, and the nature and mode of action of the various curative means adopted; last in order and least in importance, (according to M. Falret) come examinations after death.

The general indications of cure are the same as those laid down for hypochondriasis—Manual labour, the chase, travelling, and the like, are to be enjoined. Purgatives are here recommended as things of course. Emetics are extolled as most useful in preventing a relapse; and if the medicine does not excite vomiting in the usual dose, we are advised to give a small quantity of opium before repeating it, as suggested by *M. Amard*, of Lyons. Bleeding, blisters, setons and similar remedies, are spoken of as occasionally useful.

As an invariable rule, the person in a paroxysm of this species of insanity, or while brooding over the means of destruction, is not to be left alone.

On the questions of the means of restraint, sometimes necessary in the cases of refractory patients, and the enactment of laws against suicide, we must refer to the work itself, or to the March number of the London Medical and Physical Journal, in which the subject is ably discussed. We are indebted to that Journal for the frame of this article.

On the use of Soda Tartarizata and Potassæ Sulphas in diseased states of the Mucous Membrane of the Stomach and Bowels.

Under this head, we have an article in the London Medical and Physical Journal for February, by *Charles Waller*, Esq. in which the writer details several cases of vomiting and purging, and of diarrhœa, and dysentery, which were promptly relieved by one or other of the above medicines, in doses of half a drachm to two scruples of the former, and one drachm of the latter every four hours. It was not found necessary to combine them in any of the cases detailed by Mr. Waller.

In the same Journal is a '*Case of Vaccine Vesicle occurring six months after the insertion of the Virus*,' by U. Baker, M. D.—*Edit.*

Iodine.

This substance, which some months ago was recommended by Professor Brera of Pavia, as a very active emmenagogue, has, we learn by a letter from a medical friend in Milan, been abandoned as an internal remedy, on account of the violence and danger of its operation.

We learn from the same source, that the free use of the lancet and the counter-stimulant treatment, are most in vogue at this time in Italy.—*Edit.*

Hydrochlorine in Hydrophobia.

The confidence of many Italian physicians, at the head of whom is Professor Brugnatelli, still continues unabated in chlorine with water, administered by the mouth and applied to the bitten part, as a remedy in hydrophobia. Many cases of cures by this means are given in the Journal of Physics, Chemistry, Natural History, Medicine, and the Arts, published at Pavia.—*Edit.*

Case of Trepan, by M. Dupuytren, *of the Hotel Dieu.*

On the 1st of February last, M. Dupuytren performed the operation of trepan upon a patient in the Hotel Dieu at Paris, under very peculiar circumstances. The patient, a young man, had two years before received a stroke with a pointed knife, over the upper and back part of the right parietal bone. For this wound he was admitted into the Hotel Dieu: it soon healed; the patient for a long time experienced no bad symptoms, when at length a tumour appeared upon the spot where the blow had been inflicted. This tumour suppurated and burst, and a piece of the point of the knife, an inch and a half in length, was discharged through the wound, two months and a half before the date of the operation. M. Dupuytren was of opinion, that the knife must have penetrated through the bone into the substance of the brain. The discharge of pus soon ceased; the opening closed entirely; but the patient began to complain of pain in the head, to experience from time to time rigors, and irregular feverish fits; for which leeches behind the ears, laxatives, pediluvia, &c. were prescribed. These symptoms continued to increase in severity; the patient was struck with total palsy of the left side, and with occasional convulsion of the muscles of the right; in fine, he lost the powers of speech, sensation and intelligence, and lay in a state of profound stupor, with slow stertorous breathing, and with a slow, and what M. Dupuytren considered a feeble pulse. Taking all the circumstances into account, there could be no doubt that the symptoms depended upon compression of the brain; and as M. Dupuytren believed, from a collection of pus between the dura mater and the cranium. The trephine, with the expectation of finding matter here, was accordingly applied in the situation of the wound, and a circular portion of bone removed; and the surprise of the surgeon may be conceived, when the dura mater was considered to be quite healthy. Observing, however, that it projected into the wound, M. Dupuytren cut through the dura mater, but he observed nothing unnatural in the

state of the brain below. A bistoury was then plunged to the depth of more than an inch into the substance of the brain itself, and by this opening, an ounce and a half of pus was discharged. The patient, who had not complained during the incisions of the scalp, now complained loudly of pain in the wounded parts; he spoke distinctly, and answered with accuracy the questions put to him, and the paralysis was so much relieved, that he moved his limbs at will, and stretched out the paralytic arm to M. Dupuytren when he was leaving him.—For more than forty-eight hours after the operation, the patient continued to do well; no symptoms appearing, either of inflammation or compression of the brain. All of a sudden, however, he fell into violent convulsions, which ended in death, in about two hours. The brain was inspected the second day after, and no marks of inflammation of the membranes, or of the brain itself, were discovered. There was a small quantity of pus in the cavity of the abscesses, but not enough to produce any degree of compression.—*Paris, 16th Feb.* 1823.

M. Dupuytren's *rare Case of Luxation of the Metatarsus.*

It has been denied, that from the structure of the parts, a luxation could take place of the whole metatarsus upon the tarsus; and the arguments have been supported, at least negatively, by there being no case on record. M. Dupuytren has set the question at rest, by exhibiting an instance of this luxation to the Royal Academy, which occurred to a woman.—*Sceance Acad. Roy. Med. Paris.*

Dr. Walther's *Singular Case of a foreign body, which remained seven years in the Trachea.*

In 1821, a young man, aged 17, applied to Walther, affected with phthisis, from the claw of a craw fish which he had swallowed in 1811, and which had got into the trachea, and remained in the right bronchia, occasioning violent convulsions, coughing, and hæmoptysis. Oil of sweet almonds, followed by opiates, purgatives, assafœtida, and corrosive sublimate eased the cough, and he thought, as he became easier, that the claw must have been removed. There remained however phthisis, which was followed by cramps, which did not yield to bathing. Up to 1814 he expectorated pus, and had repeated feverish attacks in spite of pitch, vapour baths, and Dover's powder. He had subsequently a brain fever, strong convulsions, chorea, strabismus, and somnambulism. Sometime after, he was seized with an irresistible desire to bite, and when he could find nothing else he bit his own hands. He afterwards had distressing optical illusions, and could not look on any thing black without screaming. He lost the sense of taste, and it was painful for him to utter a sentence. His limbs were then paralysed, and he took a great passion for cutting and piercing instruments, and when alone he cut and stabbed himself. Sometimes he sought to strangle himself; but after the excess of the furious fit was over, he complained of great fatigue, and of uncommon pains. For two years he amused himself like an infant, during all which time the cough and expectoration continued. After a time, his paralysis was partly removed again, and he began to walk and to try medicines, all of which he had given up. Every thing was tried, blisters, anthelmintics, camphor, musk, bark, calomel, aloes, hellebore, laurel water, iron, zinc, &c. and all without success. In 1815, his nervous symptoms returned during winter, and disappeared again without medicine in spring. In Autumn they again returned more violently than ever, and his expectoration contracted a very remarkable fœtor. He bruised every thing he could come at, and had a strong propensity to leap out of the window, which he once accomplished from the first floor. His appetite was gone, and his bowels torpid. In January, 1816, he lost his voice, his sight, and his hearing; but these he recovered in the succeeding summer; and the year following, the same circumstances occurred. In 1818, he

lost his appetite, and could only take bread, honey, and coffee. Medicines were again tried with no avail.

On the 27th of April, 1818, after a violent coughing for several days, he brought up the claw of the craw fish with a great quantity of pus, and this put him in great hopes of a cure. In 1819, he had a quotidian fever, which was subdued by bark, myrrh, and acetate of lead. In 1820, he took no medicine. During the winter of 1821, he complained of pains in his side, and spit up blood. He tried the vapour of tar and sulphur; the expectoration ceased, he recovered his health, and can now attend to his business.—GRAFE *and* WALTHER'S *Journ. der Chir. und Augunheil.*

Dr. JACOBSON, *of Copenhagen, on the Venous System, of Birds, Reptiles, and Fishes.*

In man and the other mammalia, the veins of the inferior and posterior part of the body meet in one common trunk, forming the vena cava inferior, and going directly to the heart. But in birds, reptiles, and fishes, these veins do not go to the vena cava inferior, and afterwards to the heart, but pass to the kidneys, or to the kidneys and liver. 1. In some fishes, such as the cyprini and clupeæ, the veins from the skin and muscles of the middle part of the body unite into several trunks, and run in various directions to the kidneys, in which they are finally distributed. The caudal veins meet in a common trunk between the kidneys, receive their recurrent branches, (*venæ renalis revehentes,*) and uniting with the veins from the testicles or ovaries, form the vena cava inferior. 2. In other fishes, such as the raiæ, the squali, the esoces, and the pleuronectæ, the caudal vein divides into two branches, and these having received other single veins from the middle of the body, are divided in the kidneys. These single veins sometimes pass separately to the kidneys. The vena cava is formed as in the preceding case. 3. In all birds and amphibious animals, as well as in the murænæ and the lophii, the veins are formed in the same manner, with this difference, that the caudal vein, before proceeding to the kidneys, gives off a large branch to the vena portæ to be carried to the liver. In amphibious animals, the caudal vein receives branches from the *proper organ,* or the membranous sac, which contains fluid or fat, and opens into the cloaca. In birds, there is a small branch formed from the ischiatic and the inferior crural vein, which goes directly to the vena cava. This is a manifest transition to the venous system of the mammalia.

Dr. Jacobson is of opinion that the venous system of birds, reptiles, and fishes, is destined to convey the venous blood to the kidneys, or to the kidneys and liver, for the purposes of secretion; and hence, the renal secretions in these orders of animals, is from venous blood.—By examining embryos, this system was found to owe its origin to the omphalo-mesenteric veins.—OKEN'S *Isis.*

DR. REISSEISEN *on the Structure of the Lungs.*

In an Essay on this subject, our author was considered equal to Sömmering, who was at the same time candidate for a prize offered by the Berlin Academy. He proved, contrary to Helvetius, and in some degree accorded with F. Meckel, that the lungs are a very minutely divided extension of the trachea, the branches of which gradually lose their cartilaginous portion as they divide, and continue their course till they end, not in cellular membrane, but in a simple membranous cul de sac. Over this a vascular plexus is spread, arising from the bronchial arteries, out of which the pulmonary veins at once spring; and of course, the arterial blood is mixed with the venous blood. The bronchial veins, again, do not form a trunk, but open separately into the pulmonary veins, which return the blood to the heart. He thinks he has demonstrated, in opposition to Haller, that the lungs are well supplied with

nerves, not from the intercostal, but from the pneumo-gastric; and he denies all anastomosis *in the lungs* with the eighth pair. He considers the state of collapse as the natural state of the lungs.—*Saltzburger Zeitung Medizin und Chirurg.*

M. Itard *on the Transmission of Sound by the Eustachian Tube.*

M. Itard controverts the received opinion, that sound is partly conveyed to the ear through the inner opening of the Eustachian tube. The experiment upon which the common opinion is founded is, that when a watch or other sounding body is made to touch the teeth, it is heard more distinctly. It is unfortunate, M. Itard thinks, for this theory, that by putting the watch back on the tongue, without touching the teeth, and at the same time, shutting the mouth, the sound cannot be heard at all, though the watch is much nearer the Eustachian tube. We have tried this, and find that M. Itard is correct. But why then, it will be said, do people open their mouths, when listening attentively? Perhaps to allow the sound to strike on the teeth, which are good conductors.—Itard, *Maladies de l'Oreille.*

Mr. Henry Earle *on the Pathology of the Spine.*

Dissections have proved to Mr. Earle, that the most distressing nervous symptoms, and even complete paraplegia, may be produced, by adhesions taking place between the membranes of the spinal marrow, (whose freedom of motion is essential to health,) and by effusion into the canal, or theca. Affections of the dorsal vertebræ, he found to be much more serious, and more early manifested with respect to spinal disease, than of the cervical or lumbar, chiefly, as it appears from the difference in the capacity of the canal.—*Phil. Trans.*

Tar Vapour.

Dr. James Forbes, Deputy Inspector of Military Hospitals, has given the inhalation of tar vapour, as recommended by Sir A. Crichton, a trial in pulmonary affections, the result of which corresponds with our own experience in this remedy. It is, as Dr. Forbes observes, a difficult thing sometimes, to distinguish between chronic affections of the mucous membrane, and tubercular ulceration in the parenchymatous structure of the lungs. In the latter state, tar vapour, like all other remedies, fails. But it does more—it aggravates the complaint, as we ourselves have witnessed. In chronic catarrhal complaints, however, it often is of service. We can scarcely agree with our author in his pathology of chronic catarrh. He considers it to be a disease succeeding inflammatory action of the bronchia, "but which is itself unattended with *any lesion or inflammation*; but, on the contrary, has for its cause a morbid relaxation of the lining membrane of these tubes." This "morbid relaxation" must surely be some kind of "lesion," even if it be not of an inflammatory nature. But we are far from believing that this morbid relaxation, and this "preternaturally increased secretion" of the mucous membrane of the lungs is unconnected with chronic inflammation. On the contrary, we think they are, if not one and the same, at least twin brothers, or probably as cause and effect with each other. Dr. Forbes illustrates his pathology by the state of the urethra in gleet; but really we think gleet exhibits an unequivocal example of chronic inflammation in the mucous membrane of the urethra, as a mucous diarrhœa does that of the lining membrane of the intestines. Be this as it may, we shall give the result of our author's experience with tar vapour.

Diseases.	Total.	Cured.	Improved.	No Effect.	Bad Effect.
Phth. Pulm.	19	none.	none.	8	11
Catar. Chron.	32	8	6	18	none.

Med. Chir. Review, Dec. 1822.

Iritis.

Dr. Smith, of the Army Ophthalmic Depôt at Chatham, has made a valuable report of cases to our respected cotemporary of the North. Twelve instances of iritis are narrated, accompanied by the usual symptoms of increased vascularity of the iris and external tunics of the eye-ball, pain, intolerance of light, lachrymation, immobility, contraction, or irregularity of the pupil, dimness of vision, and sense of over-distention of the eye-ball. The cause was, in almost all the cases, attributed to the action of cold. Some of the men had had syphilis, and some not. The same might be said of mercury. These results, as far as they go, in Dr. Smith's opinion, "have little tendency to support the supposed noxious effects of syphilis or mercury on the eyes." Dr. Smith, from much experience, is inclined to view the syphilitic and mercurial actions as predisposing, not exciting causes of iritic inflammation, partly by their deranging the healthy functions of the system, and partly from their requiring confinement, whereby the body is rendered more susceptible to the action of cold, which appears to be the general exciting cause of idiophatic iritis.

The treatment was regulated by the severity of the symptoms. When the pain was violent, or moderate but of long standing, venesection to syncope was ordered—but when the pain was pretty moderate, and the other symptoms did not run high, local blood-letting was considered sufficient. After the bleeding, a purgative, generally containing some tartrite of antimony, was exhibited. No benefit was derived from full vomiting.

"As soon as the bowels were freely evacuated, the next object was to affect the mouth with mercury. This was done by giving calomel in conjunction with opium, during both the day and night, in doses of two grains of the former, and a quarter of a grain of the latter, every hour, or perhaps every two hours, till the gums felt tender, or an increased flow of saliva was manifested. About this period of the cure, the patients generally stated that they experienced a very considerable abatement of the pain, and sense of fulness with which they had been hitherto annoyed. The vision immediately became more clear, and the irregularity of the pupil and effused lymph began to subside, and the iris to assume its natural colour. A continuation of the mercury for ten days or a fortnight, so as gently to keep the mouth affected, removed the disease in all except one."

Our author observes that iritis may be cured in the ordinary way, by antiphlogistics, but neither so safely nor so speedily as on the mercurial plan above described. Added to which, the chance of losing or impairing the visual orb is much more by the one treatment than by the other.

We have often been surprised that the treatment of iritis alone, which no one will deny to be an acute inflammation, did not alter the language of physicians and physiologists respecting the *stimulant* powers of mercury. It is considered a stimulus, a general or universal stimulus, and little else. Now wine or brandy is also a general stimulus; but would either of them cure iritis? The term (as a single one) most applicable to mercury, is that of a *universal secernant;* and we have long thought that the increase of absorption consequent on the operation of mercury, results from the previous evacuation or depletion, which is well known, as in the instance of blood-letting, to set the absorbents actively at work in all parts of the system.—*Ibid.*

Epilepsy.

In a well written paper on epilepsy, in which Dr. Shearman advocates the doctrine of nervous, rather than *vascular* disturbance, as the first link in the causation of the disease, we find the following passage. "The medicine which, in my hands, has more frequently succeeded than any other in removing epilepsy, is the elutriated oxyd of tin, given in the dose of from two scruples to one drachm to an adult, night and morning, for about four days, at

the end of that time giving a purgative, and again resuming the medicine or not, according to its effects upon the system, or its apparent power over the disease. That it possesses powers different from, and superior to the other preparations of the same metal, I am fully convinced, and I think it deserves a trial by practitioners after they have been disappointed of success in the exhibition of other remedies."—*Ibid.*

Extraction of a living Fœtus from a dead Mother.

It but rarely falls to the lot of a surgeon to have an operation of this kind on hand.

On the 15th of April, 1820, a woman in the last month of pregnancy was run over by a stage-coach near the end of St. Thomas's street, Southwark. She was immediately conveyed to St. Thomas's Hospital, and expired in twenty minutes after the accident. Mr. Green and Dr. Blundell, after a short consultation, agreed on the propriety of the Cæsarean section, which was performed in less than a quarter of an hour from the death of the mother. On extracting the child it exhibited no signs of life. The umbilical cord was tied and divided—a tracheal pipe introduced, and the lungs inflated. After fifteen minutes artificial respiration, the child showed symptoms of returning life. The infant was then immersed in warm water, but the pulse diminished in force and frequency, and the breathing became embarrassed. It was now dipped in cold water, without any marked effect. After a time the breathing became natural, and in 52 minutes the child opened its eyes. It was taken by the friends to a house in the neighbourhood, and put under the care of a wet nurse. On the visit next day, it was found that little nutriment had been taken—that the child had not cried—and that its breathing was embarrassed. The infant lived but 34 hours after emancipation from the womb of its unfortunate mother. On opening the body of the latter, it was discovered that the liver was rent through its substance by the crush of the wheels of the coach, and much blood extravasated in the abdomen.

This case, as Mr. Green observes, affords a proof that a fœtus may be recovered, if promptly extracted from the uterus, when the mother has been killed by violence—and this too, under the unfavourable circumstances of death, accompanied by a profuse hæmorrhage. The case detailed is creditable to the zeal, humanity, and ability of the two distinguished practitioners concerned.—*Ibid.*

Communication between the Stomach and Bladder.

The experiments made in England by Darwin, and more recently by Wollaston, Brande, and Marcet, tended to prove that different substances introduced into the stomach were found in the urine, without having passed by the medium of the lymphatics or blood-vessels. M. Fodera has resumed these experiments; and he has given to them an ingenious modification, which enabled him to discover some phenomena which had escaped the English physiologists. He introduced into the bladder a catheter, with a cork, having tied the penis that the urine might not flow by the sides of the instrument. He laid bare the œsophagus at the anterior part of the neck, and injected into the stomach a solution containing some grains of the hydrocyanate of potass, with iron. This being done, he frequently uncorked the sound, and received the urine which flowed from it on paper. He placed a drop of solution of sulphate of iron on the paper, and added to it another of hydrochloric acid, to make the colour disappear. In one experiment, the prussiate was detected in the urine ten minutes after its injection into the stomach; and, in another, five minutes thereafter. The animals were instantly opened. The salt was found in the serum of the blood drawn from the thoracic portion of the inferior vena cava; in the right and left cavities of the heart, in the aorta, the thoracic duct, the mesenteric ganglions, the

kidneys, the joints, and the mucous membrane of the bronchiæ.—*Journal de Physiologie*, Janvier, 1823.

Bones of a Fœtus voided by the Rectum.

Catherine Damiano, of healthy constitution, after two favourable accouchements, became pregnant for the third time. This conception was marked by all the usual symptoms, the enlargement being inclined towards the left iliac region. The existence of the fœtus was demonstrated by its movements: these were sometimes interrupted, and often very sensible in this region. At this time she was taken with pains, which were believed to be those of labour, and which ended in an evacuation from the uterus, of a liquid slightly tinged with blood. The milk-fever supervened; the mammæ were filled, and the secretion flowed from them in abundance. These occurrences took place in November; and, from December till August following, she menstruated regularly: at this period the evacuation ceased, without any apparent cause. She had a continual discharge from the vagina, of a whitish yellow fluid, and experienced various inconveniences. She continued to be tormented by very acute pain, corresponding to the anterior part of the tumour and the eminence of the sacrum, and by continual diarrhœa, with tenesmus. Towards the middle of January of the second year, she suffered more than ever, and was seized with continued fever, with intervals of cold followed by burning heat, which was felt particularly towards the sacrum: she then evacuated by the rectum some bones, naked, deprived of cartilage, and without any sensible figure. The excretion of these bones was accompanied by that of some purulent sanguineous matters. In examining the parts carefully, M. Roagna discovered that these bones had made a route for themselves, by means of an opening in the rectum, about six lines in length, and about twenty-one lines from the anus. This evacuation greatly relieved the patient; but the pains returned with violence, and at several times, until all the bones were voided, which took place in the month of July, the third year after the conception.—*Revue Medicale*, Janvier, 1823.

Means of breaking down Calculi in the Bladder.

An instrument has been invented, and it is said brought to perfection, in Paris, by M. Amusat, the use of which is to break down calculi in the bladder, and render the fragments so small that they may be voided as gravel. The instrument consists of pincers, which are confined in a tube not larger than a sound, until introduced into the bladder. They are then opened, the stone is seized with facility, and, by moving the handles in a particular manner, is soon reduced to powder. In a few seconds, a stone the size of a nut is broken with facility. It appears, however, that as yet the trial has been made only on a *dead* body: it still remains to be learned what the result will be in a living one.—*Journal of Science.*

Action of Magnesia on Salep.

M. Brandes, of Hoxter, has made some experiments on a compound which is formed when calcined magnesia is put into a solution of salep. When twenty grains of salep were dissolved in four ounces of distilled water, and thirty grains of pure magnesia were added, the whole became, after some hours, solid and jelly-like; and even after a month it had not assumed the least putrid smell. Carbonate of magnesia had the same effect, but in a smaller degree. Neither the white of eggs, nor tragacanth gum, a weak solution of isinglass, nor of starch, assumed, on addition of magnesia, a similar jelly-like appearance. The mucilage of quince-seeds deposited the magnesia with a granular appearance, and the solution seemed to have become more fluid. Neither lime nor white bole produced a similar effect upon the

solution of salep. The jelly is insoluble in water, fat oils, oil of turpentine, alcohol, or a solution of caustic potash. Acids, principally sulphuric acid, dissolve it partly; the remainder is more bulky, and is opalescent.—*Annals of Philosophy.*

On the Volatile Oil of Bitter Almonds as a Poison, by M. Vogel, *of Munich.*

To deprive the oil obtained from bitter almonds by distillation of its hydrocyanic acid, he agitated it with a concentrated solution of potash, and distilled it to dryness. The oil volatilized with the water, and the residuum in the retort, contained cyanide of potassium. To be certain that the oil was entirely deprived of all its hydro-cyanic acid, he distilled it anew with potash; but this time the residuum contained no cyanide of potassium.

The volatile oil of bitter almonds, thus purified, is without colour, and heavier than water. Its taste is extremely acrid and burning; it crystallizes rapidly by contact of air; it dissolves easily in alcohol and ether, but only in very small quantity in water. The flame of its combustion is very brilliant, and accompanied with much smoke.

In order to find whether this oil, freed from its hydro-cyanic acid, was still poisonous, M. Vogel put a drop of it on the tongue of a sparrow; it died, after violent convulsions, in a few seconds. He poisoned a dog, two months old, with four drops of it. He hence infers that this volatile oil, well purified, produces on animals deleterious effects, analogous to those of the hydrocyanic acid, although in a feebler degree.—*Journal of Science.*

Proper State of Prussic Acid for Medicinal Use.

A series of experiments has been undertaken by a company of associated physicians, surgeons, and naturalists, at Florence, to determine the best state of the hydro-cyanic or prussic acid for medicinal purposes. The experiments were made with great care, and varied several ways. Different preparations of the substance were used, rabbits being the animals on which they were tried. Their joint opinion is expressed as follows: "We may then conclude, from our researches, that the essential oil of the prunus laura cerasus is to be preferred in medical practice to all other preparations which contain the hydro-cyanic acid: for, unlike the distilled water of the plant, and pure prussic acid, it contains the same proportion of the acid, and is of the same power, whether recently prepared or old, when made in one place or another, after exposure to the air, to light, or to heat. We think also that the oil of olives, or of almonds, is the most proper vehicle, in the proportion of an ounce to twelve drops of the essence; or in a smaller dose when employed by friction externally."—*Ibid.*

Remarkable Fact relative to the non-Contagion of the Yellow Fever.

A young Englishman, who arrived at St. Thomas's the preceding year, with a young and beautiful countrywoman whom he had secretly married, was attacked by the yellow fever. When the disease was at its height, and the symptoms of inevitable death became apparent, the young woman, in despair, and determined not to survive the object of her affections, undressed herself *entirely*, and placed herself by the side of her dying husband in bed, embracing his body. She remained for ten hours in this situation, and was with difficulty removed after he had breathed his last. She did not experience the slightest symptoms of the disease.—*Revue Encyclopedique*, Jan.

Experiments on the Cerebellum and Cerebrum.

1st. M. Flourens removed the cerebellum in successive layers from a pigeon. At the taking away the first slice, the animal experienced but little weakness and hesitation in its motions. At the middle layers, its walk be-

came unsteady and agitated, altogether like that of a drunken person; soon it could not walk without the assistance of its wings. The sections being continued, the animal lost altogether the faculty of walking; its feet were no longer sufficient to support it, and it had to sustain itself on its tail and wings: it often attempted to walk or fly, but always without success. If it was pushed forward, it tumbled over its head; if backwards, it rolled on its tail. The sections were carried farther: the animal then lost the faculty of keeping itself up on its wings and tail; it tumbled continually, without being able to stop in any fixed position, or it finally rested flat on its back or belly. In other respects, it saw and heard very well; its air was lively, its head erect, and spirited.

2d. M. Flourens removed from a pigeon the right cerebral lobe: the animal lost instantly the sight of the left eye; but the contractility of the iris of that eye continued unchanged. There was also a marked feebleness in the right side of its body. With the exception of these two circumstances, the animal was well: it sustained itself, walked, ran, flew, saw with the other eye, understood, wished, felt as usual. The other lobe being removed, the sight of both eyes was instantly lost, but not the contractility of the iris. There was at first a very distinct general debility: otherwise, the animal held itself perfectly upright on its feet; and, in whatever position they put it, it maintained its equilibrium. It walked, when pushed; it flew, when tossed into the air; but, left to itself, it remained plunged as it were in a continual stupor. It never moved, except in proportion as it was irritated; it gave no sign of volition. Memory, vision, hearing, will, all its perceptions, were extinguished. There is none of his numerous experiments which M. Flourens has not repeated on each of the four classes of the vertebrated animals; and he has always indicated the shades of greater or less depth which characterize these classes.—*Journal of Science.*

Vaccination in the Roman States.

By a late edict, which has been published at Rome, by the Papal secretary of state, it appears that very important arrangements, in various points of view, have been made towards the more general and perfect propagation of vaccination. A central establishment, with a secretary, &c. has already been organized; and soon a vaccinating commission will be appointed for each of the provinces.—*Vienna Gaz.*

Small-Pox in Prussia.

In the Prussian monarchy, out of 484,523 children, born in the year 1821, 40,000 have been vaccinated. During the above period, there died of small-pox, in all the provinces under the dominion of the King of Prussia, 1,190 persons. Before the introduction of vaccination, from 30 to 40,000 individuals annually died of the small-pox.—*Ibid.*

Case of Hydatids found in the Pulmonary Veins; read at the Academie Royal de Medecine, by M. Andral, Jun. M. D.

On opening a subject, lately, at *La Charite*, I found both lungs filled with a great number of hydatids. I was at first of opinion that these *entozoaires* were lodged in the parenchyma of the lungs: but a short time afterwards I examined the preparation, conjointly with M. Breschet, when a more attentive dissection discovered to us a fact, of which, I believe, there are but few analogous cases in the annals of science, viz. the existence of hydatids in the pulmonary veins. Several of these hydatids were lodged in sacs with a smooth surface, which appeared at first to be so many cysts. Others, empty and rolled several times upon each other, were contained in narrow canals, which ramified like vessels, and the lengthened form of which they had assumed.

The internal surface of these canals was smooth like that of the great sacs. We soon discovered that in each sac a vessel of a small caliber terminated: this, in order to form it, underwent a more or less considerable dilatation. We then dissected the pulmonary veins at their origin; and when we had almost arrived at their capillary divisions, we begun to witness several of them present a number of dilatations (*renflemens*), filled with hydatids. After being thus dilated, the vein resumed its primitive caliber, but a little farther on became again dilated. The most considerable sacs would have admitted a large nut, and the smallest could have scarcely contained a pea. They existed equally in both lungs. The hydatids which they contained had all the characters of *acephalocystes;* in several there were small points of a faded white colour; others presented on their internal surface a great number of miliary granulations. The majority were broken. Around them the pulmonary tissue was in some places sound and crepitating; in others, strongly obstructed and *hepatized.*

A large hydatiferous cyst, with cartilaginous parietes, and capable of admitting a large orange into its interior, existed in the middle of the liver; it contained from eight to ten hydatids. The right cavities of the heart were considerably dilated, and the parietes of the right ventricle a little thickened. The individual who was the subject of this case was a man about fifty-five years of age, who for a year previously had been ill fed, and often experienced considerable distress. I mention these facts, because in accounting for the presence of these animals in man, it may be considered that the regimen and manner of living exercise some influence on their development. During the stay of the patient in the *Hospital la Charite*, nothing but the ordinary symptoms of an affection of the heart were manifested. Pulsations distinguishable by the noise, but without impulsion, over the whole extent of the sternum and under both clavicles; pulse ordinary; face turgid and livid; anasarca of the limbs; constant state of the orthopnœa; a crepitating rattling, audible in several parts; in others complete absence of respiration. The difficulty in respiration became greater and greater, until the period of his death. It is not unreasonable to suppose that the presence of so great a number of hydatids in the pulmonary veins impeded the circulation, and contributed to the development of the aneurism of the heart.—*Journal de Physiologie, par* MAGENDIE, *January*, 1823.

On the Employment of Oil in Cases of Poisoning by Cantharides.

Dr. Pallas is of opinion, that the administration of oil in this species of poisoning is dangerous, from the property which it possesses of dissolving the active principle of the cantharides, and by this means of augmenting the danger instead of preventing it. It appears that M. Orfila has made experiments for the purpose of satisfying himself of the truth of M. Pallas's statements. Cantharides were macerated in cold oil, and the oily *maceratum* afterwards administered to dogs, all of which died in a few minutes. We observe, that both in the tables by M. de Salle, to which we had occasion to allude in our last, and in those of Mr. Stowe, oil is recommended in cases of poisoning by cantharides, and we therefore agree with him, "that too much publicity cannot be given to so important a fact, in order that he may by that means prevent the fatal accidents which arise from this error."—*Journal de Pharmacie, Novembre*, 1822.

On the Fungous Excrescences, which sometimes show themselves after the falling off of the Umbilical Cord.

In those cases where a fungous, conoid tumour, accompanied with a considerable discharge, which sometimes continues for a great length of time, shows itself at the navel, M. Desruelles has found the hydrarg. submurias,

sprinkled over the tumour, remove it in a very short period.—*Journal General de Medecine, Octobre*, 1822.

Curious Affection of the Heart.

Dr. Fisher, of Hildburghausen, relates a case of disease of the heart, in which both the patient himself and also the by-standers, among whom was a physician, could distinctly hear the beating of that organ for six or eight weeks previous to death. They were not only sensible of the noise in the region of the heart, but, on feeling the pulse at the same time, it was observed that the pulsations were simultaneous with it. This noise had a great resemblance to the croaking of a frog, and it could be heard easily at the distance of five or six paces from the patient.

On examination after death, the auriculum dextrum and the vena cava ascendens were found dilated to a considerable size. The right ventricle contained a firm polypus, of about an inch in breadth; one division of which protruded into the auriculum dextrum, the other into the arteria pulmonalis.—*Medicinisch Chirurgische Zeitung.*

Croup cured by Sulphate of Copper.

Dr. H. Hofmann recommends cuprum sulphuretum as an excellent remedy in croup, especially after blood-letting. In slight cases, he begins with giving from one quarter to one half a grain every two hours. In those cases, however, where there is also laryngitis or bronchitis, three, four, or more grains are administered, so as to excite instant vomiting: by so doing, the Doctor thinks that not only the lymph is expelled from the trachea, but also that the further secretion of it is prevented, so that the patient is very much relieved, and soon cured. After copious vomiting has been produced, the medicine is to be given in small doses, in conjunction with digitalis. In support of the utility of the above practice, Dr. H. affirms that he has employed it with the greatest success during a period of ten years, in a great number of children affected with croup, without ever having lost a single patient in that time; notwithstanding the disease was often at its height when he was first called in.—Hufeland's *Journal.*

New Method of performing the Operation of Lithotomy in the Female, by Dr. Lisfranc.

The patient, in this operation, is placed in the usual position, and a common catheter is passed into the bladder. Its convexity is then turned upwards; the handle is given to an assistant, who, pressing lightly from above downwards, depresses the urethra and vagina. The part to be operated upon is that space lying between the urethra and the symphysis of the pubis. The surgeon, having ascertained the position of the two rami of the os pubis and of the clitoris, passes his finger into the vagina, in order to ascertain the course of the pudic artery, which is occasionally irregular. The operator then taking a common bistoury, and holding it like a writing-pen, makes a semilunar incision, (the convexity being upwards,) marking with his left hand the spot where the incision should begin and end. It is to begin on a level with the right side of the meatus urinarius, one line distant from that branch of the pubis, and is carried to the same point on the other side. It is recommended to cut the cellular tissue layer by layer. It is extremely important not to make such a degree of pressure on the anterior surface of the bladder as to detach it from the pubis. The surgeon having reached the anterior and inferior part of the bladder, may open it transversely, after having passed his bistoury into the cavity; but, if the thumb and the fore-finger of the left hand are introduced, (the first in the vagina, and the second into the wound,) and the parts between are a little stretched, the bladder will become tense, he draws a little forwards, and the transverse incision will be

more readily and easily made. Repeated experience, it is said, has proved that there is no danger, in following this method, of wounding either the urethra or the pudic arteries; and it is impossible to injure the vagina. It is to be observed, that there is less danger of hemorrhage from a wound in the body of the bladder, than in its neck. The wound made by this operation is capable of greater extension than that made in the ordinary manner, and, consequently, is more advantageous for extracting large calculi. The infiltration of the urine appears to be impossible, for the following reasons: 1st, because the bladder is situated higher in the woman than in man; 2dly, because the cellular membrane between the bladder and pubis is fine, elastic, and in small quantity; 3dly, because the shortness, breadth, and position of the urethra, favour the escape of the urine by the natural passage. Inflammation of the bladder or peritoneum are not, of course, more to be feared in this than in the common mode of performing the operation.—*Journal Universel*, Fevrier, 1823.

Case of Super-fœtation, by M. Percy.

A woman of Torrigeny, in the department of the Seine et Marne, became pregnant in 1820, for the third time. The commencement of the pregnancy presented nothing remarkable, but about the fourth month she felt the movements of the child very distinctly, particularly on the right side: these, although at first very strongly marked, by degrees became weaker, and finally ceased altogether, without any obvious cause. At the end of seven weeks, she experienced again all the symptoms of a new impregnation, which excited great anxiety; but the nine months of gestation were completed without any considerable inconvenience. On the accession of labour, the pains succeeded each other so briskly, that at the end of an hour a male child was born: it was small, but lively, and afterwards throve well. Soon after the expulsion of the fœtus, which was accomplished without any difficulty, fresh pains came on; during which several dark, inorganic, coagulated masses were expelled: these were followed by a black, flocculent, spongy mass, in the centre of which was found a female fœtus at the fourth month, in good condition, and which has been preserved.—*Revue Medicale*, Fevrier.

Treatment of Dysentery.

Professor Wendt, physician to the General Hospital of Copenhagen, has lately made trial of the *Triumfetta Semitriloba* in dysentery, and reports very favourably of its effects. It is used in the form of a decoction, which is mucilaginous, without any degree of astringency or bitterness. It is likewise employed as a domestic remedy in the West Indies, and is said to prove efficacious when all other medicines have failed.—*Nye Hygæa*, Januar.

MEDICAL INTELLIGENCE.

Extract of a letter from Dr. S. Brown, Professor of the Theory and Practice of Medicine in the University of Transylvania, to the Editor of the Medical Recorder.

"Lexington, March 17th, 1823.

"For some time I have employed my mind upon a subject which I consider highly important—I mean lithotomy; and I am inclined to think that the operation may be made exceedingly simple and safe. I shall submit my plan to you in a few words.

"Evacuate the alimentary canal completely, and administer a strong anodyne enema: then by gradual but *continued* distention with the fingers, or a speculum ani, *dilate* the anus, having previously filled the bladder with a mucilaginous fluid. Between the ureters, and above the junction of the seminal vessels and prostate gland, make an incision into the bladder through the rectum, without cutting the sphincter ani. Through this opening extract the stone by the fingers or the forceps. Leave a catheter in the urethra, to carry off the urine, as it is deposited by the ureters. Place the patient in a position most favourable to the discharge of the urine through the catheter, and feed him on a diet containing the smallest quantity of feculent matter.

"By this operation, you would avoid cutting *sensible* and important parts, as the membranes of the rectum and bladder possess organic life only. The incision would heal in 36 or 48 hours at most, as is the case when the bladder is punctured through the rectum.

"The sphincter ani is easily dilated to such an extent as may be necessary. (See the London Med. and Physical Journal, vol. 22, page 155, or Eclectic Repertory, 1 vol.) See Charles Bell on puncturing the bladder, Larrey on gunshot wounds in the bladder, and Sanson's operation of lithotomy. (Dict. des Science Medicales.)"

The possibility of dilating the anus to a sufficient extent for the performance of the operation, as suggested by Dr. Brown, would seem to receive additional support from the observations of Mr. Camoin, of Odessa, (Journal Complementaire, March, 1822,) who has performed and approved Sanson's operation. Mr. C. seems to have encountered some difficulties in making his incisions, and the subsequent steps of the operation, by the constriction of the sphincter ani. In order to obviate these, "he suggests the expediency of introducing a dilating gorget into the rectum, which, by keeping back its posterior surface, and by enlarging the anus, allows greater space for the proceedings of the operation." (London Med. Repos. Feb. 1823.)

As Doctor Brown's method of extracting the stone, remains as yet untried, we are not prepared to decide how far it will prove successful, and whether or not it will supersede the operations hitherto resorted to for the same purpose. From all we can collect, however, on the subject, it is well spoken of by several surgeons of eminence in this country; some of whom will attempt it without delay. We earnestly recommend it, therefore, to the serious attention of our enterprizing surgeons.

From the late Europeans, we learn that M. Regnault, a skilful surgeon of Grenoble in France, has invented an instrument, by which the operation for lithotomy may be completed in two minutes. Several experiments have confirmed this astonishing fact. We confidently hope we shall be enabled soon to present to our readers a more detailed account, both of the instrument and method of operation of M. Regnault.—EDIT.

Extraction of a Fish-hook from the Stomach.

(Communicated in a letter from Professor Brown, of the University of Transylvania, to the Editor of the Medical Recorder.)

A child near New-Castle, in Kentucky, playing with a fish-hook, incautiously swallowed it, whilst the line to which it was appended, hung out of the mouth. The mother of the child instantly seized its hands, and sent for Dr. Brite, who arrived soon after this embarrassing occurrence. Learning that the hook was one of very small size, he made a hole through a rifle-ball, and having passed the line through it, he dropped the ball into the child's throat, which was immediately swallowed. He then, by means of the line,

withdrew the hook from the stomach, whilst the bullet prevented its point from injuring the cardia or œsophagus.

Extract of a letter from a highly respectable Physician of Boston, to the Editor of the American Medical Recorder.

"*Operations for the division of the Facial and inferior Maxillary Nerves for Neuralgia.*—A patient applied to Dr. Warren, of this city, for a neuralgia, which had affected him for fourteen years; during the last four of which he had an unceasing pain, with frequent spasmodic paroxysms, such as are common in this disease. He had previously undergone operations for the division of the infra-orbitar branch, and the nerve arising from the lower jaw on the chin. The relief by these operations had been slight; but he had received from them a conviction that his disease might be cured by the knife. The pain was described as passing from a point, near the ear, over the side of the face, in the course of the branches of facial nerve.

After it had been represented to the patient that the operation was uncertain in its consequence, he remaining firm in his purpose, was desired to enter the Massachusetts General Hospital, for the sake of the peculiar accommodations in this institution; and the operation was performed in presence of the Medical class and the physicians of the town.

A dissection was made between the back part of the parotid gland and the mastoid process; the nerve exposed—a portion removed; and the face paralyzed on that side.

The pain was slightly relieved by this operation, but the patient's sufferings continued to be so violent that he begged some other operation might be devised; and now pointed to the lower jaw as the seat of his pain. In consequence of his solicitations, Dr. Warren performed the following operation a few days after the former.

He made an incision over the side of the jaw, through the skin, parotid gland and masseter: applied a small trephine, exposed the nerve where it enters the lower jaw, and removed a piece half an inch long. The patient declared *that nerve* to be the seat of his disease; in the evening he became free from pain, the first time for four years. In sixteen or seventeen days he left the hospital, completely relieved from pain, and with the strongest conviction that it could never return."

Inguinal Aneurism.

"At the time the first of the operations described above was performed, Dr. Warren operated on an inguinal aneurism. The tumour was large, and extended into the cavity of the abdomen; from the *upper part of the sac* arose the epigastric artery, giving out the obturator, both greatly enlarged, and in a dangerous situation. From the outside of the sac arose the circumflex iliac artery, also enlarged. Notwithstanding the difficulties generated by this state af things, the operation was happily accomplished. In three weeks, the patient walked about the ward."

Remarks on the use of the Phytolacca Decandra, (American Nightshade,) in Chronic Rheumatism. Communicated in a letter from Wm. Zollickoffer, M. D. *of Maryland.*

During the last few years, my attention has been particularly directed to the investigation of the medicinal powers of many of our indigenous plants. In my inquiries on this subject, I have been the more eager, from entertain-

ing the conviction that many of these vegetables had received a too precipitate and undeserved encomium, and that in order to expunge from our Materia Medica all such as were inert, it was of indispensable necessity to examine with scrupulous attention their real degree of efficacy. Among the many plants, the properties of which I determined to investigate, the Phytolacca Decandra has not been neglected.

In the fall of 1820, whilst on a visit in the country, I procured a quantity of the berries of the plant, sufficient to obtain several quarts of the juice. By the process of evaporation, five quarts of this latter afforded me one pound and seven ounces of the extract. This preparation I have occasionally administered internally in cases of chronic rheumatism, though with less success than the simple juice. Of seven cases, which from their nature were thought worthy of particular attention, and in which the extract was exhibited in doses of five grains three times a day, three only were cured. Whilst on the contrary, of the same number of patients to whom I administered the juice in the dose of a table-spoonful every four hours, I succeeded in removing the symptoms of this troublesome and distressing malady in five.

The juice may be preserved from fermentation, and thus kept perfectly pure throughout the summer months, by the addition to every quart of eight ounces of the spts. vin. ten. It is more particularly, when we cannot procure conveniently the *Datura Stramonium*, that I would recommend a trial of the Phytolacca. The former, when used in the manner I have directed in the seventeenth number of this Journal, is perhaps a more prompt and effectual medicine than any of the preparations of the P. D.

Previous to my closing the present article, I would observe that in the majority of those cases in which I have resorted to the extract or juice of the Phytolacca, I have found it necessary to prescribe cathartic medicine, as the sulphates of soda and magnesia, which in my hands have proved of more real advantage than any other purgatives, in the treatment of chronic rheumatism.

The following suggestion, respecting a convenient mode of washing laudanum or spirits out of the stomach, is extracted from a letter addressed to us by Dr. Alexander Somervail, a very respectable physician of Essex county, Virginia. We entertain no doubt, that in cases of emergency, where the instrument proposed for the same purpose by Jukes, and described in the January number of this Journal, cannot be procured, Dr. Somervail's will be found highly advantageous; at any rate, it deserves a trial.—*Edit.*

"Take a flexible tube of proper size, and four feet long, one end of which prepared for passing into the stomach, and the other terminating in a funnel. When this is introduced into the stomach, water may be poured into the funnel, while the tube is kept perpendicular in its whole length; by which means the stomach will be filled as an hydrostatic bellows; when this is accomplished, and the funnel full, if this latter is quickly turned down, so as to remain as low as its length will allow, all the liquid will run out again, as it will then be converted into a syphon. In this way it is believed the stomach may be filled and emptied as often as water can be poured through the funnel and tube into it. Perhaps, in some cases, the force of the syringe may be necessary, in order to agitate the contents of the stomach, and mix it with the water, but in cases of laudanum and spirits, these will mix with the water as readily as they would in a glass."

In a communication addressed to the editor of this Journal, Dr. Gloninger, of Lebanon, states, that he was consulted for a boy ten years old, who had accidentally swallowed a half-cent, and complained of pain in the epigastric

region, with nausea. Dr. Gloninger prescribed for him a dose of oleum ricini, which operated in about six hours, though without discharging the coin. "The next day," continues the Doctor, "I perceived, to my surprise, that the boy *was labouring under a profuse salivation.* It continued for nearly twenty-four hours, during which period his mother discovered the copper in the excrements he had voided.

The half-cent was exhibited to me, and upon a careful inspection, appeared but little corroded by the juices of the stomach and intestines."

Spina Bifida, or Hydro-rachitis.

Dr. Chas. Urquhart, of Port Royal, Caroline county, Va. in a letter to the editor, describes an interesting case of this disease. In consequence of a want of room, we are compelled to limit ourselves to brief extracts. The tumour was about the size of a hen's egg—its shape, an irregular spheroid, and its covering appearing to consist in nothing more than cuticle, except at the apex, where it was clothed with a hard and callous substance, resembling adipose matter. The circumference or walls of the tumour were hard and unyielding. Its seat was the junction of the dorsal and lumbar vertebræ, extending down as far as the sacrum. The child looked thriving and healthy. From the tumour upwards, it was well formed, enjoying a free use of its upper extremities. The lower part of the body, though of the proportionate size, was paralytic. "In order to strengthen and thicken the integuments, and prevent the bursting of the tumour, astringent lotions were used.

The tumour continued to increase daily, and finally assumed the appearance of a bladder distended with air. Some parts had a pellucid aspect; other parts of it were dark and red coloured. From its apex, there exuded a yellow coloured lymph, which however, did not, in any degree, diminish the size of the tumour. It was now about eighteen inches in circumference, and must have contained from sixteen to twenty ounces of fluid. At the expiration of forty days, the tumour burst. The child immediately fell into convulsions, which continued with but little intermission for three days, when it expired.

Upon dissection, the following were the prominent features of the case:—A total deficiency of spine, from the termination of the dorsal vertebræ; and in place of the lumbar, a solid mass of cartilaginous matter extended to the sacrum. The walls of the tumour were composed of cartilage, and the integuments covering it had, in some degree, assumed the same nature. After cutting through this mass of cartilage, the knife penetrated directly into the abdominal cavity, but no previous communication was discovered between it and the tumour. The spinal marrow in this bed of cartilage, appeared perfect and natural. Before death, an evident decrease had taken place in the lower extremity of the infant, while the upper exhibited all the marks of vigorous health."

ADVERTISEMENTS.

TO THE SUBSCRIBERS OF THE AMERICAN MEDICAL RECORDER

The increase of Medical Journals in our country, within a few years past, has been very considerable; there are now no less than five, all of which tend to support the rising medical literature of our country; they are published quarterly, like the Recorder, in Boston, New-York, Philadelphia, Baltimore, and Cincinnati, are highly respectable, and conducted by men of talents.

That the whole of these journals can have a general reading throughout our extensive country seems improbable. With a view in a great measure to remedy this defect, the future numbers of the American Medical Recorder will give a concise and impartial analysis of their most interesting matter.

This arrangement, the proprietor flatters himself, will be gratifying to his patrons.

AMESBURY ON FRACTURES.

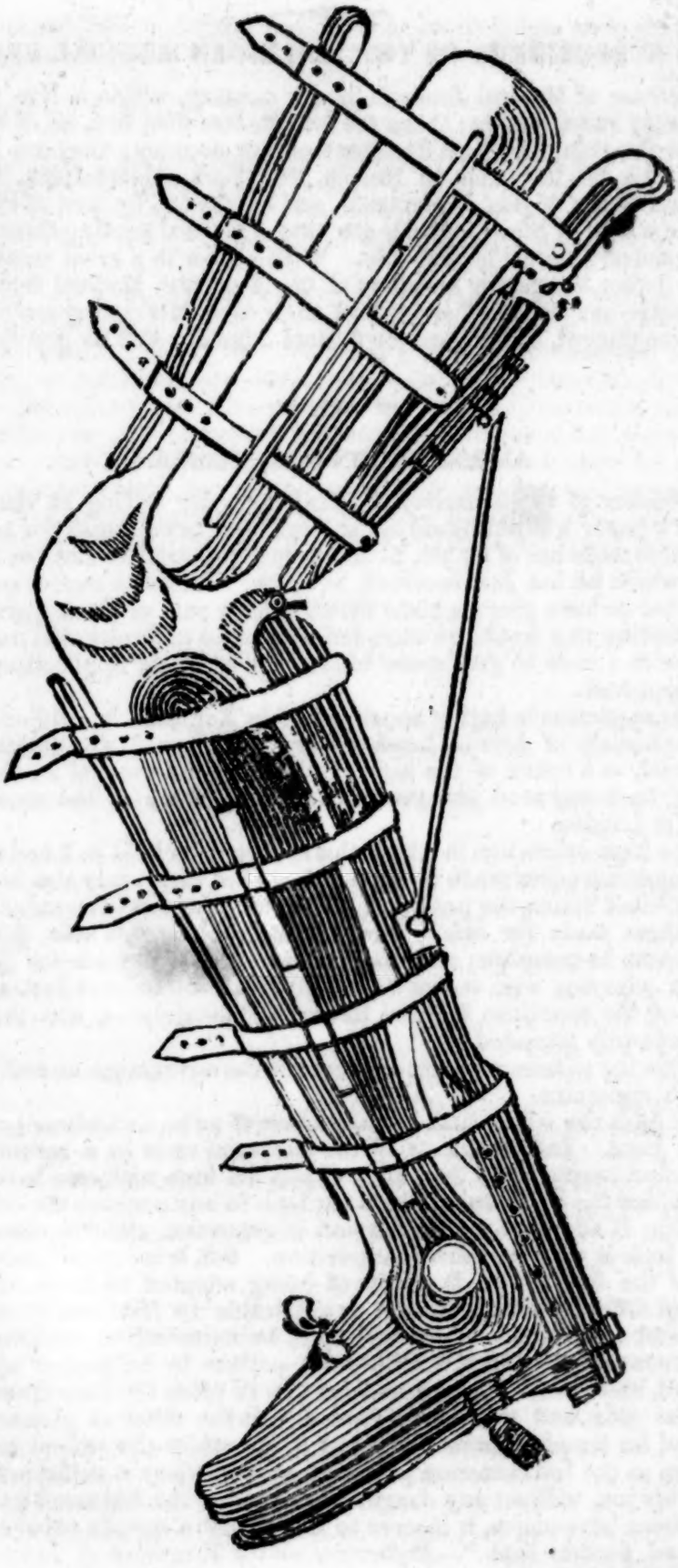
The publisher of the American Medical Recorder having at the time Mr. Amesbury's paper was published in the Recorder, heard much for and against the apparatus made use of by Mr. A. was induced to send to London for a complete set, which he has just received, with Mr. A.'s latest improvements. It was intended to have given a plate shewing each part of the apparatus seperate, but finding this would be attended with some difficulty, and unnecessary expence, with a view to give some idea of its mode of application, a rough sketch is annexed.

That this apparatus is highly approved of in England, is evident from the fact of the Society of Arts in London having honoured Mr. Amesbury with a gold medal, as a token of the high opinion they entertain of it; as well from the fact of its being used and recommended by some of the most eminent Surgeons in London.

From the high estimation in which this apparatus is held in London, the numerous important cures made by it, and the belief that it may also become useful in the United States, the publisher of the Recorder has been induced to have some of them made for sale. The set he has imported cost $35, but he can have them as complete, and in every respect as well made for $25; those gentlemen who may wish to get a set, will please to address James Webster, publisher of the American Medical Recorder, Philadelphia, and their orders shall be promptly attended to.

The following summary points out some of the advantages attending the use of Mr. A.'s apparatus.

"1st, It fixes the whole limb so as to admit of no motion whose centre is not in the hip joint. 2nd, It maintains the fractured ends in a natural position, and in perfect coaptation. 3rd, It lies upon the limb with ease to the patient. 4th, It enables the Surgeon to place the limb in any position the case may indicate. 5th, It allows of the application of extension, and counter-extension, when the limb is placed in the bent position. 6th, It is entirely passive to the motions of the limb. 7th, It admits of being adapted to limbs of different lengths and different sizes. 8th, It is applicable to fractures in any part of the limb, and of all kinds, whether simple, comminuted, or compound. 9th, In all fractures of the thigh, it allows the patient to be placed upon a soft feather bed, and in most cases it enables him to place the limb upon the heel, or upon the side, and to alter it from one to the other at pleasure. 10th, When used for simple fractures of the leg, it enables the patient to leave his bed as soon as the inflammation produced by the injury is sufficiently got under, and this too, without any danger of displacing the fractured ends. 11th, With all these advantages, it insures to the patient a speedy recovery, and a straight and perfect limb."—*Reflections on the Treatment of Fractures, by J. AMESBURY, M.R.C.S. &c.*



For a more clear and detailed account, see No. 12, p. 915, Medico-Chirurgical Review, by James Johnson, M.D. and the American Medical Recorder, vol. 6, p. 65.

N. B. The annexed sketch of a case is given to shew the important advantages of Mr. Amesbury's apparatus.

Mr. Wallack, the comedian, was travelling between New-York and Philadelphia in the stage, which was upset, and by this accident Mr. W. had his leg fractured in two places. The best surgical aid was procured, one of the fractures united in a reasonable time, not so the other; in five or six months after the accident Mr. W. returned to London with the fracture un-united, he immediately applied to Sir Astley Cooper, who recommended him to the care of Mr. Amesbury, as being the most likely to render him assistance, particularly as the fracture was of so long standing. Mr. W. accordingly placed himself under the care of Mr. A., whose apparatus was immediately applied, and in six weeks a perfect cure was effected. It will be recollected, this must have been eight or nine months after the fracture. Mr. W. informed the writer that he walked about nearly all the time during the cure on crutches.

Quere. If the Surgeon who first attended the case mentioned by Dr. D. of Baltimore, had been provided with Mr. Amesbury's apparatus and made use of it, would it not have saved the patient much pain and suffering?

MEDICAL SCHOOL AT BOSTON.

The Medical Faculty of Harvard University give notice, that their lectures at the Massachusetts Medical College in Boston will begin on the third Wednesday of November, and be continued daily until the termination of the course.

It is presumed that the means, now possessed by this school for promoting and facilitating the acquirement of medical knowledge in all its branches, are equal to those offered by any American college, and commensurate with the advances made by society in the other departments of useful learning. As auxiliary to the several courses of medical instruction, the school is amply provided with apparatus, collections, and opportunities for practical demonstration; which, if aided by industry on the part of the student, are calculated to afford him the same kind of information, as that for which the hospitals and seminaries of Europe are usually visited. These auxiliary advantages consist in a large and select medical library; a cabinet of a thousand anatomical preparations; an ample and well furnished chemical laboratory; a collection of specimens of the materia medica; a suit of models and specimens for illustrating the principles and operations of obstetrics; a course of recent dissections, both public by the professor, and private by the students themselves; and lastly, an opportunity of acquiring practically medical and surgical knowledge at the Massachusetts General Hospital.

The following courses of lectures begin and terminate at the periods which have been specified.

Anatomy and Surgery . . .	by	Dr. Warren,	Fee	$20
Chemistry	"	Dr. Gorham,	"	15
Midwifery and Medical Jurisprudence	"	Dr. Channing,	"	10
Materia Medica	"	Dr. Bigelow,	"	10
Theory and Practice of Physic .	"	Dr. Jackson,	"	15

These constitute the regular course of medical instruction preparatory to a medical degree. Students, who choose, have the additional opportunity in the spring season to attend lectures at Cambridge on Mineralogy, Botany, Natural Philosophy, and Philosophy applied to the Arts, as well as on various departments of literature.

As the Massachusetts General Hospital has not been completed so as to be

accessible to medical students until within the two last seasons, it may be proper to give some account of the opportunity it affords for practical instruction to students during their residence in the city. The wards of the medical department have always furnished a succession of interesting cases, both acute and chronic, which have been under the care of the professor of the theory and practice of physic. Regular clinical lectures during the winter are given upon these cases, and students are admitted to the patients so far as to become experimentally conversant with the symptoms of their diseases, the progressive changes which take place, and the operation and influence of medicinal agents.

As is common in large establishments of the kind, many patients resort to the General Hospital to undergo surgical operations, rendered necessary by accident or disease. No other kind of institution affords equal opportunities for acquiring a practical acquaintance with operative surgery. Not only the operations themselves, but the treatment of the cases preparatory and consequent to the operation, and the progress and management of convalescence, may be here studied and observed. The superior conveniences which a well arranged hospital affords for the accommodation of the sick, renders this institution a resort not only of the poorer class, among whom, in a large city, accidents are of frequent occurrence; but of other individuals from a distance, who come with the expectation of relief from chronic maladies requiring surgical treatment.

The following is a record of surgical cases, and of operations performed in the Massachusetts Hospital, by the Professor of Anatomy and Surgery, during twenty months, from the opening of the building in September 1821 to June 1823.

1821.	Sept.	21.	Operation for Prolapsus ani.
	Oct.	18.	Lithotomy.
	"	23.	Operation for Popliteal Aneurism.
	"	25.	Operation for Fistula in ano.
	Nov.	10.	Fractured leg.
	Dec.	9.	Dislocation of the hip in the ischiatic notch.
1822.	January	6.	Fracture of the thigh.
	"	"	Compound fracture of the leg.
	"	30.	Removal of a portion of the tibia.
	Feb'y	5.	Amputation of the leg.
	"	19.	Operation for phymosis.
	"	"	Removal of diseased toes.
	March	9.	Fractured leg.
	April	22.	Compound comminuted fracture of leg.
	"	24.	Extirpation of tumour from the breast.
	June	8.	Comminuted fracture of the Os humeri.
	July	17.	Amputation of the breast.
	August	2.	Compound fracture of both patellæ.
	"	30.	Removal of foreign substance from the globe of the eye.
	Sept.	20.	Amputation of the breast.
	Oct.	12.	Extirpation of the parotid gland.
	"	"	Operation for prolapsus ani.
	"	23.	Operation for Fistula in ano.
	Nov.	23.	Operation for Cataract.
	"	28.	Operation for Necrosis.
	"	"	Removing tumour from the foot.
	Dec.	20.	Operation for artificial pupil.
1823.	Jan.	15.	Removing tumour from the side.
	Feb'y	5.	Removing fragments of rib.
	"	12.	Operation for cataract.
	"	18.	Operation for Inguinal aneurism, the iliac artery tied,

Feb'y	18.	Facial nerve divided for tic douloureux.
"	25.	Operation for phymosis.
"	"	Laying open a fistulous ulcer over the ribs.
"	26.	Inferior maxillary nerve divided for tic douloureux.
March	6.	Fractured leg.
"	"	Operation for Cataract.
April	4.	Operation for Cataract.
"	29.	Operation for Cataract.
May	26.	Operation for Necrosis.
"	21.	Fracture of the thigh.
"	26.	Operation for Cataract.
June	9.	Operation for Fistula lachrymalis.
"	11.	Operation for Cataract.
"	"	Operation for Cataract.
"	"	Operation for Eversion of eyelid.

The fee for attendance on the joint medical and surgical practice of the hospital is reduced to ten dollars.

Besides the practice of the hospital, opportunities frequently occur of witnessing the private practice of physicians, such as the condensed population of large cities is peculiarly calculated to afford, where the poorer class is numerous, and many of them the subjects of charitable institutions.

Board in the city may always be obtained at from three to four dollars per week. The medical class of the two last years has consisted of about eighty students.

Boston, June, 1823.

BERKSHIRE MEDICAL INSTITUTION,

WILLIAMS COLLEGE.

The annual course of medical lectures commence in this Institution on the second Wednesday in September, and continue four months.

Surgery and Physiology,	by John P. Batchelder, M. D.
Theory and Practice,	by Henry H. Childs, M. D.
Obstetrics and Puerperal Diseases,	by Asa Burbank, M. D.
Chemistry, Botany and Mineralogy,	by Chester Dewey, A. M.
Materia Medica and Medical Jurisprudence,	by John Delematre, M. D.
Anatomy and Elementary Physiology,	by Jerome V. C. Smith, M. D.

UNIVERSITY OF THE STATE OF NEW-YORK.

The College of Physicians and Surgeons, will commence their course of Lectures for the ensuing winter session, on the first Monday of November, at the College in Barclay street, New-York.

Dr. Post, on *Anatomy and Physiology.*
Dr. Hosack, on the *Institutes of Medicine and Practice of Physic.*
Dr. Macneven, on *Chemistry.*
Dr. Mitchill, on *Botany and Materia Medica.*
Dr. Mott, on *Surgery.*
Dr. Francis, on *Obstetrics and the Diseases of Women and Children.*

JOHN W. FRANCIS, M. D.
Registrar.

UNIVERSITY OF THE STATE OF NEW-YORK.

College of Physicians and Surgeons of the Western District.

FAIRFIELD, (Herkimer Co.) February, 1823.

The college opens annually on the first Tuesday of November, and the Lectures will be delivered as follows:

Surgery,	by Joseph White, M. D.
Midwifery,	by Westel Willoughby, M. D.
Chemistry and Materia Medica,	by James Hadley, M. D.
Practice of Physic and Medical Jurisprudence,	by T. Romeyn Beck, M. D.
Anatomy and Physiology,	by James M'Naughton, M. D.

As the order of delivering Lectures is different from that usually adopted in Medical Colleges, it may be proper to particularize, for the information of those who are desirous of selecting an institution to which to resort.

The Lectures on Chemistry and Materia Medica are delivered daily throughout the first twelve weeks of the term. At the commencement of the term also, the Professor of Anatomy will commence his course, and deliver two Lectures a day for the space of five weeks. The Professors of the Practice of Physic—of Surgery, and of Midwifery, will finish their respective courses in succession.

It will be perceived that by this arrangement, every course of Lectures (except that of Chemistry) is completed by its Professor, before another is commenced. And it is believed that this mode of instruction has some advantages over the one in common use; particularly as it enables the student to devote almost his undivided attention to the study of a particular branch of the medical art.

JAMES HADLEY, *Register.*

UNIVERSITY OF PENNSYLVANIA.

The medical lectures in the University of Pennsylvania will commence as usual, on the first Monday in November next.

Anatomy, by P. S. Physick, M. D. Professor, and Wm. E. Horner, M. D. Adjunct Professor, and teacher of Practical Anatomy.

Materia Medica and Pharmacy, by Jno. R. Coxe, M. D.

Institutes and Practice of Physic and Clinical Practice, by N. Chapman, M. D.

Midwifery and the diseases of Women and Children, by Thomas C. James, M. D.

Chemistry, by Robert Hare, M. D.

Surgery, by William Gibson, M. D.

WM. E. HORNER,
Dean of the Faculty.

A Clinical School has been established in the Alms-House of this city. The teachers in this institution are the following:

On Midwifery and the Diseases of Women and Children, Wm. P. Dewees, M. D.

Anatomy, W. E. Horner, M. D.

Surgery, H. L. Hodge, M. D.

Physiology, Jno. K. Mitchell, M. D.

Pathology, Jno. Bell, M. D.

Materia Medica, Pharmacy, and Medical Chemistry, Saml. Jackson, M. D.

Practice of Physic, N. Chapman, M. D.

UNIVERSITY OF MARYLAND.

The medical lectures will commence, as usual, on the last Monday of October next.

Surgery,	by John B. Davidge, M. D.
Chemistry,	by Elisha De Butts, M. D.
Practice of Physic,	by Nathaniel Potter, M. D.
Anatomy,	by Granville Sharp Pattison, M. D.
Materia Medica,	by Samuel Baker, M. D.
Institutes of Physic,	by Maxwell McDowell, M. D.
Midwifery,	by Richard W. Hall, M. D.

The Infirmary attached to the University having been finished, the Clinical Lectures on Medicine and Surgery, will commence the first week in the session.

TRANSYLVANIA UNIVERSITY.

Medical Department.

The lectures in this institution will commence on the first Monday in November next, and terminate the first week in March.—The course of instruction will be,

Anatomy and Surgery,	by Dr. Dudley.
Institutes of Medicine,	by Dr. Caldwell.
Theory and Practice,	by Dr. Brown.
Materia Medica and Botany,	by Dr. Drake.
Obstetrics and Diseases of Women and Children,	by Dr. Richardson.
Chemistry and Pharmacy,	by Dr. Blythe assisted by Dr. Best.

As hitherto the Professors will take the currency of the state, in payment for their tickets.

Lexington, (*Ky.*) *August* 18*th*, 1823.

COURSE OF ANATOMICAL LECTURES,

And Instructions in Practical Anatomy. By JOHN D. GODMAN, M. D.

This Course commences the second week of November next, at the Anatomical rooms, College Avenue, (immediately in the rear of the University of Pennsylvania,) and continues until the 1st of March, ensuing. The Lectures will be delivered on Mondays, Wednesdays, Thursdays and Saturdays, at a quarter before 5 o'clock, P. M. The days on which no Lectures are given, will be devoted to the instruction of the class in Practical Anatomy. The method followed by Dr. G. in his demonstrations is purely Analytical. The dissections are not prepared previous to the lecture, but are made before the class at the moment of description, whatever part of the system may be the subject of consideration. The advantages of this method, *first* introduced by Dr. Godman, have been fairly established by several courses delivered in Philadelphia, and it has received the unqualified approbation of all competent judges who have witnessed its employment.

The Anatomical Rooms are fitted up with an especial attention to the comfort of the class and the facilitation of their improvement. The instruments for the study of Operative Surgery; all those used in making Anatomical preparations, and the privilege of the Library and Dissecting Room, are allowed to the student free of additional charge. The fee for the Course is one Eagle.

Philadelphia, 1823.

SURGICAL INSTRUMENTS.

William Ruff and Co. No. 12, South Eighth street Philadelphia, respectfully inform the Medical Profession, that they will supply all kinds of Surgical Instruments of the very best quality, on the lowest terms, at the shortest notice.

Philadelphia, October, 1823.

*** James Webster, the publisher of the *American Medical Recorder*, having made arrangements with William Ruff and Co. to furnish Surgical Instruments, orders will be thankfully received by him.

NEW MEDICINES.

Sulphate of Quinine.—A supply of this valuable medicine, just received per ship Montezuma from Liverpool, and kept constantly prepared in the forms of solution, syrup, and pills.

Barry's Extract of Red Bark.—This beautiful Extract of Red Bark, is manufactured by Mr. Barry, of Plough Court, London, and is highly recommended by Paris, in his Pharmacologia, as possessing the most characteristic peculiarity of the recent substance.

Essential Salt of Rhatany.—This medicine contains, in a concentrated form, the active principles of Rhatany Root.

Extract of Stramonium Seeds.—Dose from one quarter to one grain. For an account of this active medicine, see a paper published in the 7th vol. of the Medico-Chirurgical Transactions.

Simple and Compound Fluid Extracts of Sarsaparilla.—For making decoctions and Lisbon diet drink—is particularly suggested to the faculty for its portable convenience and economy.

Citrated Kali.—For making saline draughts—is recommended by the profession for its convenience, and for being more certain in operation than those prepared with lemon juice.

Croton Oil.—A supply of this active cathartic received direct from Madras, and kept constantly on hand, put up in small bottles with printed directions.

Pyroligneous Acid.—A very valuable article for extemporaneously forming distilled vinegar of a specific strength, as one part of this acid and five parts of distilled water will produce the proper strength of distilled vinegar, and over which, of the shops, it has many decided advantages.

ALSO,

Flor. Colchici,	Vin. Flor. Colchici.
Ext. Taraxici,	—— Rad. do.
—— Rhataniæ,	—— Sem. do.
—— Dulcamariæ,	Sem Hyosciami,
—— Sarsaparillæ,	Acid Citric, crystallized,
—— Elaterii,	Tartar Emetic, do.
—— Colocynth. Com.	Prussic Acid,
—— Stramonii,	Sodaic Powders,
—— Belladonnæ,	Seidlitz do.

Lignum Dulcamara.

Mercurial Ointment, Blue Mass, and the Extracts made at Apothecary's Hall, in London.

Superior Loxa, or Crown Bark.—Also—Red, Pale and Yellow Bark, selected with great care, and warranted of the first quality: together with a general assortment of *Fresh Drugs and Medicines*, with all the new and popular articles, at moderate prices, by

CHARLES MARSHALL, Jr.

At his Wholesale and Retail Drug and Chemical Store, No. 294, Market street.

☞ Country Physicians and Apothecaries' Orders put up at the shortest notice and on the most reasonable terms.

N. B. Orders for any of the above medicines will be received by the publisher of this Journal.

NOTICE TO CORRESPONDENTS.

The following communications have been received and shall appear in our next Number.—Dr. Jameson's paper on Bronchotomy. A review of Dr. Frick's treatise on diseases of the Eye, and also of Hamilton's Principles of medicine.

Our next Number will also contain analytical and impartial reviews of the following Medical Journals, viz. New England, New York, Philadelphia, and Baltimore, which will be regularly continued, so that our patrons will have in addition to our own, the most important matter contained in the others.

We have omitted many valuable articles to give place to the Historical Essay on the state of medicine from the London Medical and Physical Journal, which we flatter ourselves will be found interesting to our readers.

We return our thanks for the numerous promises of statements of the prevailing epidemic disease. We would take the liberty of suggesting to our correspondents to be as condensed as possible in their statements; we would also recommend communications on the disease under consideration, to be made in the form of a letter.

Our correspondent from one of the lower counties of Virginia, is informed that his communication on the late prevailing epidemic in that tract of country, is received; although we think it an ingenious and well written paper, and agree with him in his Pathological Observations in general, yet we cannot admit it into the pages of this Journal, owing to the severe personal remarks on some of his brethren. Personal allusions can never be addmitted except to substantiate some important fact in science, or for the promotion of truth.

The gentleman who wrote us for information respecting medical education, and to ask our advice, as to what school would be preferable to recommend, is informed we have no choice, having nothing to do with any.

The Patrons of this Journal are respectfully informed that additional and more ample arrangements have been made to render it in future, still more valuable and interesting to the Practitioners of Medicine. The names of the principal editors will appear with the next Number.

Dr. Horner, adjunct Professor of Anatomy in the University of Pennsylvania, has just published a work on Practical Anatomy. Dr. Dewees has also just published "Essays on Midwifery;" both of these works shall be noticed in some of our future Numbers.

John Rhea Barton, M. D. one of the Surgeons of the Pennsylvania Hospital, and Philadelphia Alms-House, has within the last ten days, performed the operation of Lithotomy twice; the first operation lasted a minute and three-quarters, and the second forty-five seconds. Both patients are doing well.

N. B. All future communications intended for this Journal must be addressed to the Publisher.

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